Although the isolation of individual apartment units at Pigeon Row was not possible during the extended Phase I, during which only two walls were exposed, excavation of the rear wall of the structure, which may be less disturbed, should provide a delineation of the individual family units.

In addition, the Ab horizon in Trenches A and B does not appear to be contaminated and, although it will not provide specific information about individual occupants, should provide general information about the occupants of the row houses.

Additional intact contexts are present in Feature 6, a well sealed with a concrete cap. This well was not excavated during the Phase II investigations. Like the Ab horizon, it has the potential to provide general information concerning the occupants of the Row Houses.

Recommendations

In our opinion, additional archeological work should be conducted at the Row Houses to provide data concerning early industrial workers along the Brandywine. This additional work should be directed toward gathering information about the individual apartment units. Good document evidence exists which would allow for a precise determination of the individual occupants of the units within the row houses and detailed economic profiles of the residents, as well as their lifeways, and statements concerning ethnicity are possible.

1. Except for information referenced to "Warrants and Surveys", the property history prior to 1786 has been taken from the deed F2:421, New Castle County Property Records. Book and page number references to earlier deeds are given in that document, but the records themselves have been lost.

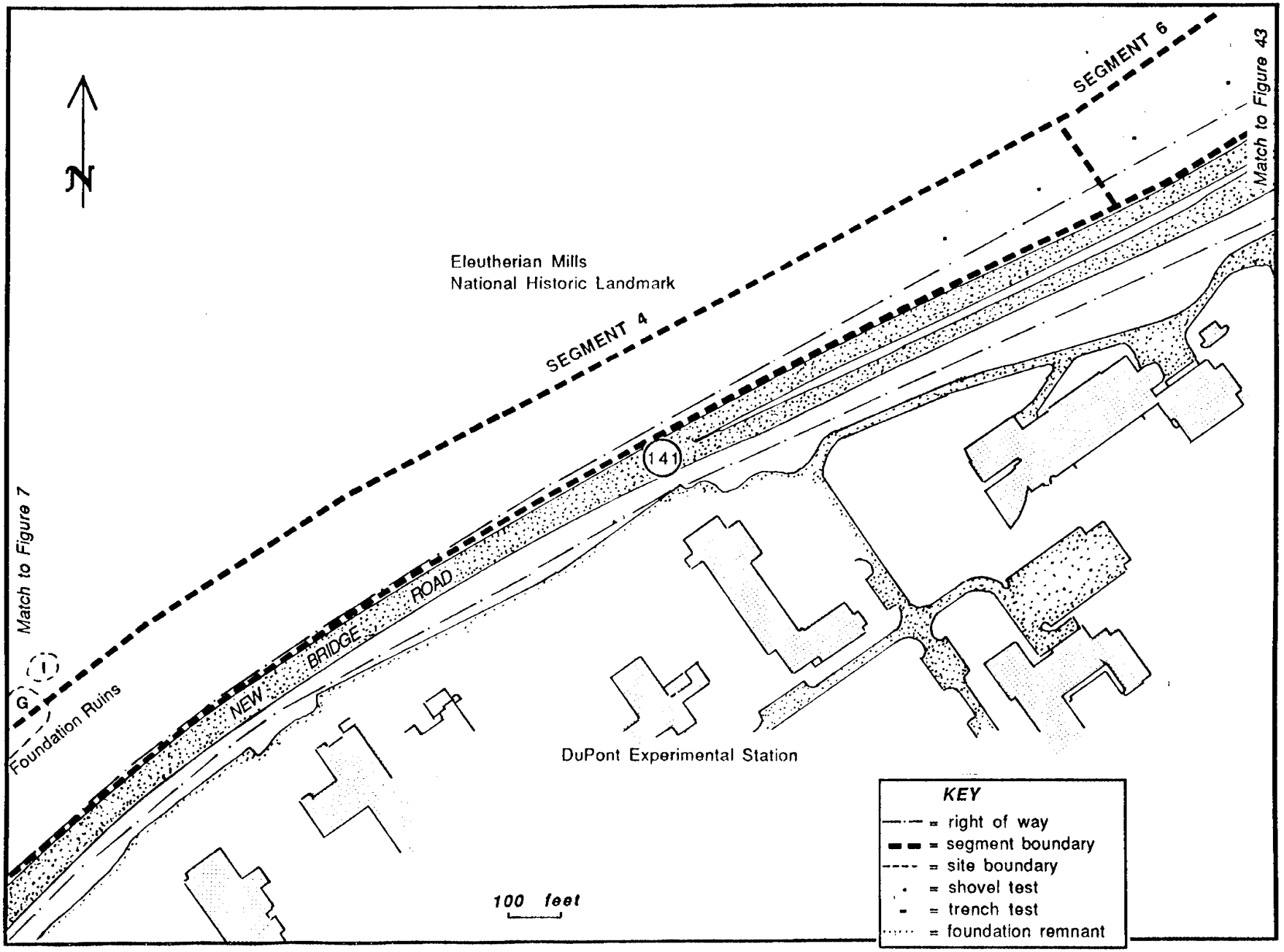
2. The original mill was probably the mill building referred to as "Rokeby Mill". This building was used as the original DuPont experiment station, and it burned in 1906 (Webster 1970).

3. Here and in the following discussion of company records it should be remembered that the Eleutherian Mills-Hagley Foundation Library archives contain literally millions of items pertaining to the company history and that of the DuPont family. Some of this material is well indexed and some is not, but clearly an exhaustive search of all documents on a particular topic was not feasible, and the general index and finding aid prepared by Riggs (1970), supplemented by the irreplaceable advice of the experienced researchers on the staff at the Eleutherian Mills-Hagley Foundation, determined the scope of each search.

SEGMENT 4

Segment 4 (Figures 2, 7 and 28) is located along the east bank of Brandywine Creek and begins 450 feet south of the present Route

FIGURE 28
PORTIONS OF SEGMENTS 4 & 6



141 bridge. It includes the area between the creek and Rising Sun Road. From the bridge, the western boundary does not extend all the way to the creek. Instead, it follows a 200 foot wide path running parallel to 141 on its western side for a distance of 2600 feet, where it meets the southern boundary of Segment 6.

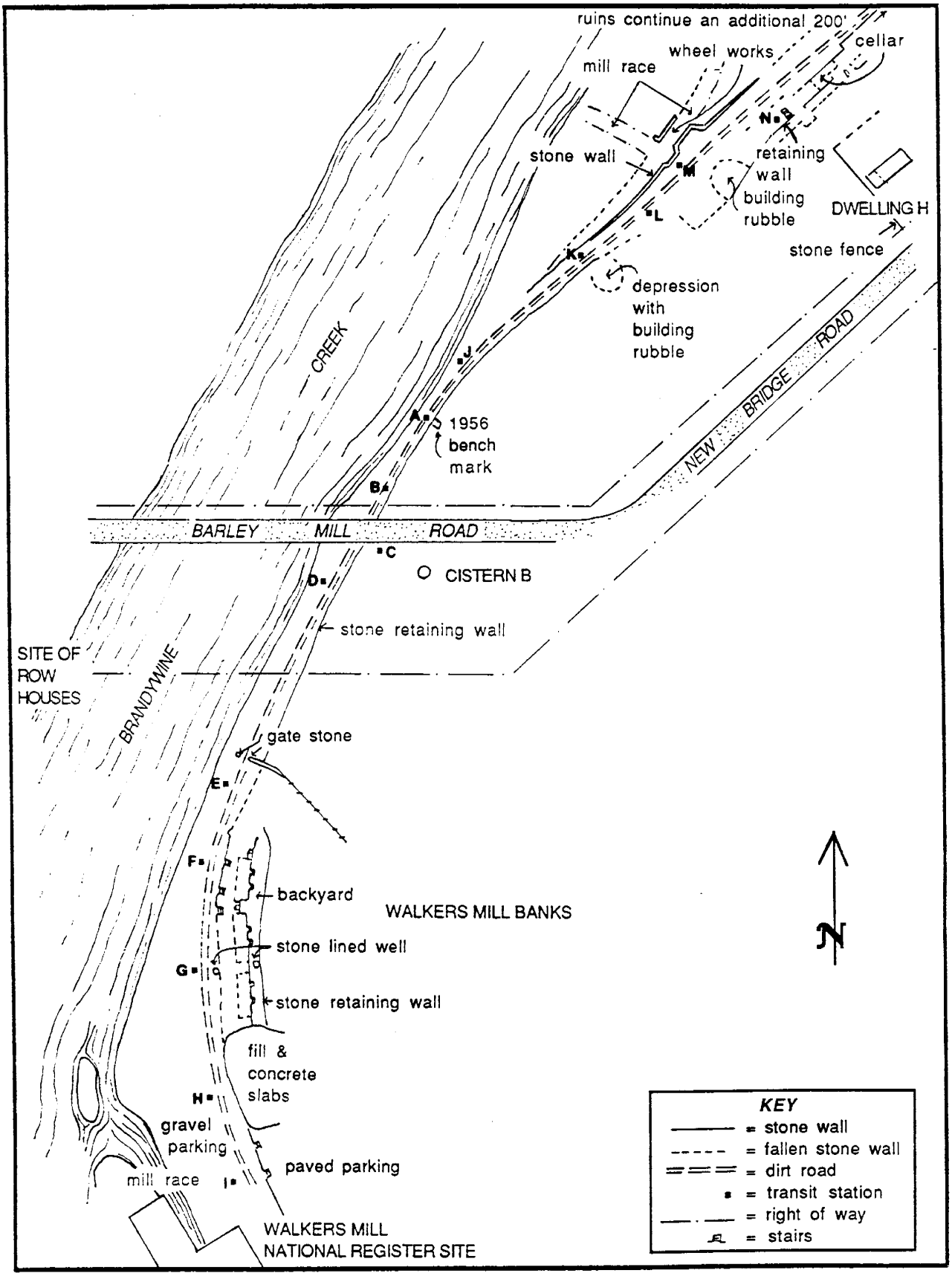
Preliminary Phase I Investigations

The entire segment is currently in mixed deciduous forest and much of it is relatively steep. Ground cover consists of a light to moderate leaf mat in addition to spotty areas of thick underbrush. A walkover survey was conducted for the entire segment. In spite of the present ground cover, foundation remnants of dwellings and industrial buildings are evident over a large portion of the segment. Subsurface testing was unnecessary at the preliminary Phase I level since so much was evident above ground from the foundation remains.

Like Segment 3, this area was rich in historic sites, most of which are associated with the industrial development along the Brandywine beginning in the early 1800's. Virtually all of the ruins found on the ground could be located on various historic maps and photographs in the records at the Hagley library, with the exception of a circular stone cistern near the bridge. Each set of structures was photographed and a transit mapping survey was conducted by DelDOT along this segment in order to accurately place the ruins on a 1" to 100' scale base map (Figure 29). The map was used to assist in the identification of individual ruins using various historic maps available at Hagley. The base map was also used to precisely determine which of the structures fell within the segment boundaries and therefore to identify which of the ruins would be impacted by the proposed construction. Many of the ruins north of the bridge fall outside the 200 foot wide boundary of the segment, while two sets of ruins, a residence (Dwelling H), and a circular stone feature interpreted as a cistern, were found to fall within the segment boundaries. Additionally, although only partially falling within the segment boundaries, the ruins and associated midden deposits of Walkers Bank workers' housing are likely to be in danger of adverse impact. These ruins lie between Walkers Mill and the 141 bridge and extend up to and just inside the southern boundary of Segment 4. Adverse impact will occur to the portions of the site lying on either side of the dirt road, should this road be used to carry heavy construction equipment to the bridge area. This seems inevitable since this is the only direct access afforded to the bridge.

Extended Phase I investigations were conducted on the three sets of ruins, Walker Banks, Cistern B and Dwelling H, all of which have been included within the state site number, 7NC-B-8. The Row House site on the opposite side of the creek is also included within the area designated as 7NC-B-8. The results of the extended Phase I fieldwork are presented in the following section.

FIGURE 29
KEG MILL, WALKERS MILL AND DWELLING H
Archeological Base Map



Results of Extended Phase I Investigations

Results of Archival Investigations, Dwelling H (7NC-B-8, Area B)

A number of ancillary industries were necessary to the production of black powder, among them the production of barrels to store and deliver the product. The most commonly used size was the keg, which held 25 pounds of powder, was 11½" head-to-head, and had a 9" diameter across the head (Windell 1967). The staves were oak on ash and the hoop poles could be made of hickory, cedar, alder, willow or chestnut. Although the use of wooden hoop poles rather than metal bands is more commonly associated with slack-coopering (Seymour 1984:27), the powder kegs were made "liquor tight" (Windell 1967) and the use of wood for hoops may reflect the common reluctance to use spark-striking metal on anything that came in contact with powder. The military continued to specify the use of wooden kegs after the technology to produce the lighter metal containers had been adopted by the industry. The technology to produce the metal containers had been patented in 1865 and they were cheaper to ship because they were lighter (Macklem 1936). There was some consumer demand for the wooden containers from miners as well, however, who used them for baling and firewood in places where scarce (Gibbon 1859).

Prior to 1837 the E. I. duPont company had purchased its kegs from outside vendors, and there were problems with inconsistencies in size (Zebley 1940:116). Alfred V. duPont initiated the construction of the keg mill after taking over as senior partner, so that the company could control the entire powder production process, including the containers. Henry gives a construction date of 1838 but says that a "freshet in February 1839 threw down the walls" (1945:24). It seems likely that this is the "Mill Seat at Keg Mill" first mentioned in the property inventory for the year 1843. A "hoop house and new dwelling" are included (Acc. #500, Box 485, (7) Inventories 1814-18, 1834-51, the Eleutherian Mills-Hagley Foundation Library Archives). This suggests that at least one dwelling was present adjacent to the mill by that time.

The mill was situated to draw water from the dam at the Hagley Yard on the 49 acre tract originally sold to E. I. duPont by Caleb Kirk in 1812 (Figure 8). This tract also included the future site of Walker's Mill, and the history of the property prior to the 1812 sale is discussed in the section on that site. There is nothing in that material to indicate any specific occupation of the site. It may be observed that this tract also contains the archeological remains of a "cistern" or spring house about halfway between Walker's Mill and the Keg Mill site, and nothing in the documentary and background search suggested a date, function, or origin specifically for that feature. Various sources (oral interviews, etc.) that describe the dwellings indicate that spring locations were improved and sometimes covered, but this location appears to be a long way from any documented dwelling sites - the closest being the most upstream of the Walker's Banks duplexes.

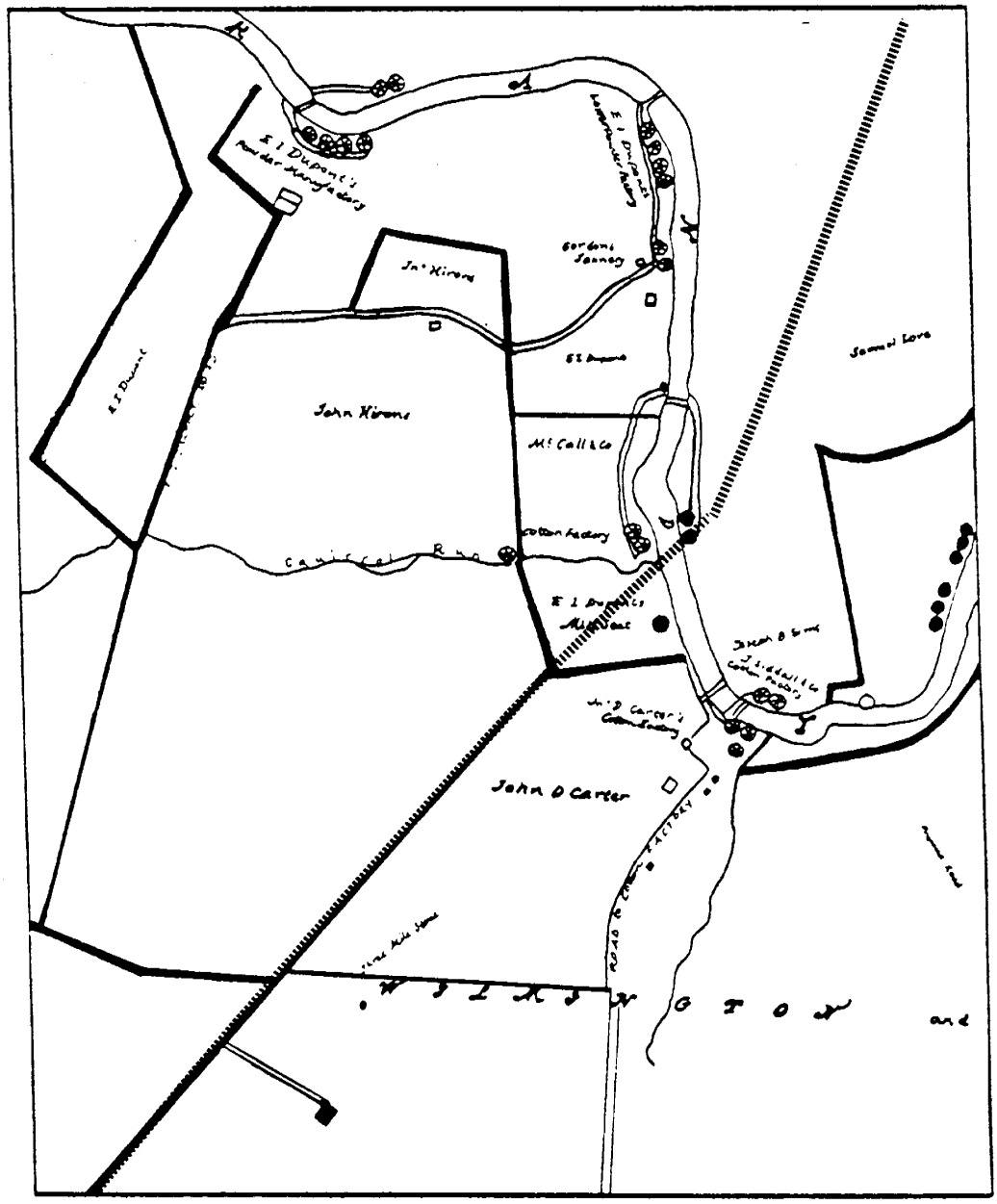
The Hagley Yard on the west side of the Brandywine, containing forge, rolling mill, splitting mill and saw mill, was sold to Thomas Lea of Brandywine Hundred by Rumford Dawes in March of 1813 for $37,000 and the sale included a half acre on the other side of the river to abut a dam (N3:11). Six days later Lea sold the Hagley Yard and the half acre across the creek to E. I. duPont deNemours for $47,000 (03:160). Lea was the son-in-law of the Wilmington merchant miller Joseph Tatnall and was also his business partner in the production of the famous Brandywine Mills superfine flour (Munroe 1954:122), and obviously purchased this tract principally for speculation. Curiously the recitation for the ownership of the half acre parcel on the Brandywine Hundred side indicates that it passed from William Anderson to John Husbands to Jacob Broom, rather than following the chain of title for the "Horse Hook" tract developed for the Walker's Mill property. Broom had other interests as well, having established the first cotton mill in Delaware (Munroe 1954:126).

In any event, by 1813 E. I. duPont has consolidated ownership of the property, though there is no indication of any development of the site until the publication of the map of the Brandywine Mill Seats which shows mills and the race on the Brandywine Hundred side of the creek (Figure 30). The exact date of this map is unclear, but it was probably made sometime between 1820 and 1830 and was based on a survey completed by J. P. Fairlamb around 1812. This suggests that there may have been a mill in that location prior to the construction of the Keg Mill by A. V. duPont after 1837.

The Rea & Price map of New Castle County, 1849, shows a mill and buildings in approximately the right location, but they are nearly obliterated by map text (Figure 9). The 1852 tax assessment shows, among other holdings by the E. I. duPont & Co. in Brandywine Hundred, "6 bldgs. keg mill & shops". It is not clear if the latter items are included in the first, but this is likely the case. The Lake and Beers map of 1860 shows four structures on the Brandywine Hundred side of the creek, upstream from the mouth of Squirrel Run. Moving in an upstream direction these are labelled "Kegg Mill", "Dry House", "Store House", and "E. I. DuPont & Co." (Figure 10), and there is nothing to indicate that any of these represent dwellings, in spite of the earlier indication in the property inventory (see above). The same buildings were converted to different uses fairly commonly by the company, however. The 1866 Tax Assessment Book for Brandywine Hundred shows, among other items for the company, a "cooper shop & tenents", suggesting that more than one dwelling house may now be present at the Keg Mill.

By the time the Beers Atlas map of Brandywine Banks is published in 1868, seven structures are shown. The mill, "Keg Fact.", sits astride the mill race, and the remaining six are shown across the road and up the bank from the mill race (Figure 11) and are grouped by a bracket to the label "E. I. Dupont & Co.". These clearly correspond to the foundation ruins still visible in the underbrush in this location, and one of the buildings, set further back from the road toward the southeast, is very likely to be the

FIGURE 30
PORTIONS OF FAIRLAMB MAP
From Information Circa 1812



Reduced and Redrawn from Original

= Route 141 today

structure excavated as "Dwelling H" during the fieldwork. A similar number and configuration of buildings appears on the 1881 Hopkins Map, although the label now reads "Keg, Woolen & Cotton" (Figure 31). Only six buildings appear on the 1893 Baist Map, but the general configuration has not changed (Figure 12): the Frazier Map (Figure 8) shows only five buildings and the mill structure itself is omitted. This is consistent with various sources (e.g. Zebley 1940:117) that observe that the keg mill was destroyed by fire in 1881 (Plate 13). The 1902 Map of the Hagley Yard (Figure 32) shows only four buildings on the southeast side of the road, and these are clearly labelled "dwellings". A fifth building is shown on the creek side of the road, and this may be the "adjacent cotton mill" that Henry asserts was converted to workers' housing in 1883 (Henry 1945:24).

The earliest rent books offer no clear reference to the dwellings associated with the keg mill, but they may be represented among the numerous ambiguous items. By 1903 notations for dwelling units at the "Old Keg Mill" appear clearly, with unit numbers that correspond to those given on the Hagley Yard Map of 1902. Chaney's 1902 property survey provides detailed descriptions of the condition of the houses and outbuildings, such as summer kitchens and wash houses (Chaney 1902:109-116), and another survey from 1905 devoted to the condition of all the privies on the DuPont property, indicates that the privies in this location were both "rock" and "dirt" (Acc. #641, Box 38, 21 Field notebooks of Brandywine Mills Surveys c. 1906-1917, Book #32, the Eleutherian Mills-Hagley Foundation Library Archives). An old photograph in the Pictorial Collection at the Eleutherian Mills-Hagley Foundation Library shows the Keg Mill after the 1881 fire.

In summary, the keg mill was built in 1838 and it would appear that at least some of the adjoining dwellings were built shortly thereafter. They continued to be used for workers' housing after the adjacent mills ceased to function, since company records indicate they were occupied into the second decade of the twentieth century at least.

Results of Extended Phase I Field Excavations, Dwelling H (7NC-B-8)

Ruins of a single structure, built on a relatively steep slope descending to the west in the direction of the Brandywine Creek, lie approximately 50 feet from the Route 141 road surface (Figures 7 & 29). Much of the stone foundation walls are present and the structure is rectangular in shape, measuring 52' by 20'. It had a cellar in the central portion of the structure while additions appear to have been added after construction of the central portion had been completed. This interpretation is based on the method used to join the foundation walls of the two additions to the main section of the house.

A three foot high stone fence which extends up and down the slope is located to the grid east of the structure. Below the house a stone retaining wall runs at a right angle to the stone

FIGURE 31
HOPKINS ATLAS OF 1881

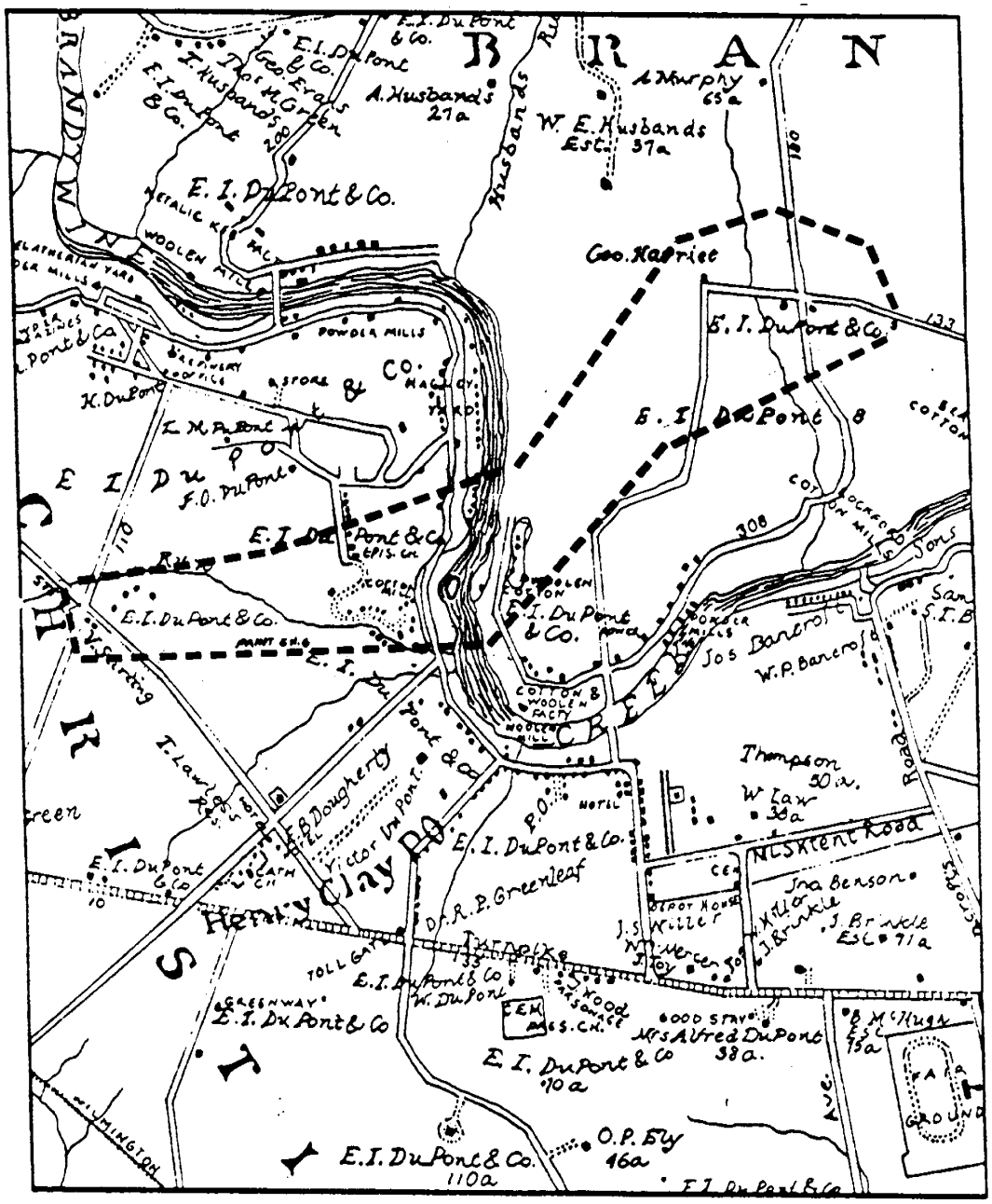
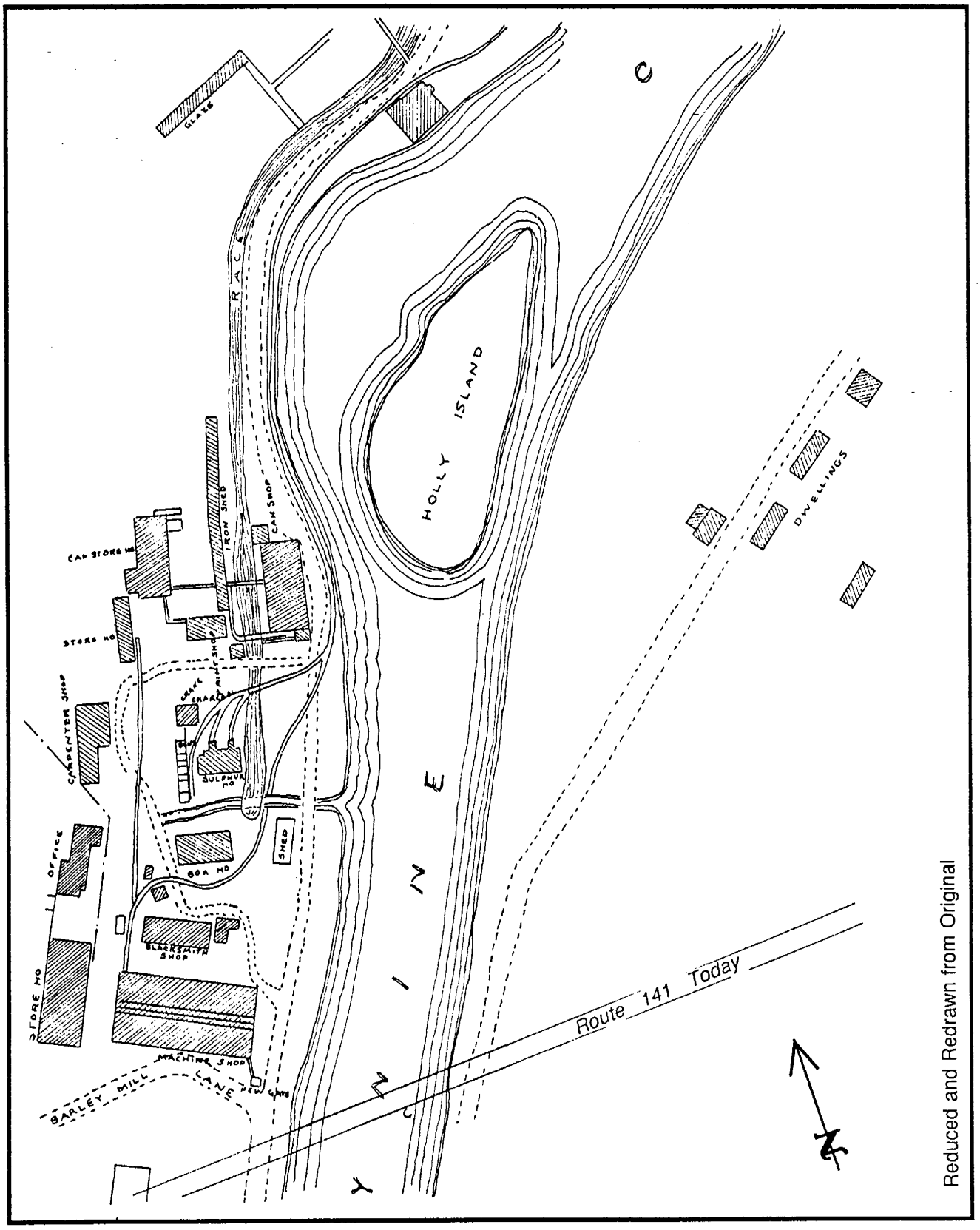


PLATE 13
Keg Factory After 1881 Fire

FIGURE 32
HAGLEY YARD 1902



fence. The lower retaining wall serves to separate the Dwelling H site from ruins of other structures situated downslope. These other ruins lie above and below the dirt road which parallels the creek at the base of the slope. These fall outside the segment boundary and were therefore not tested.

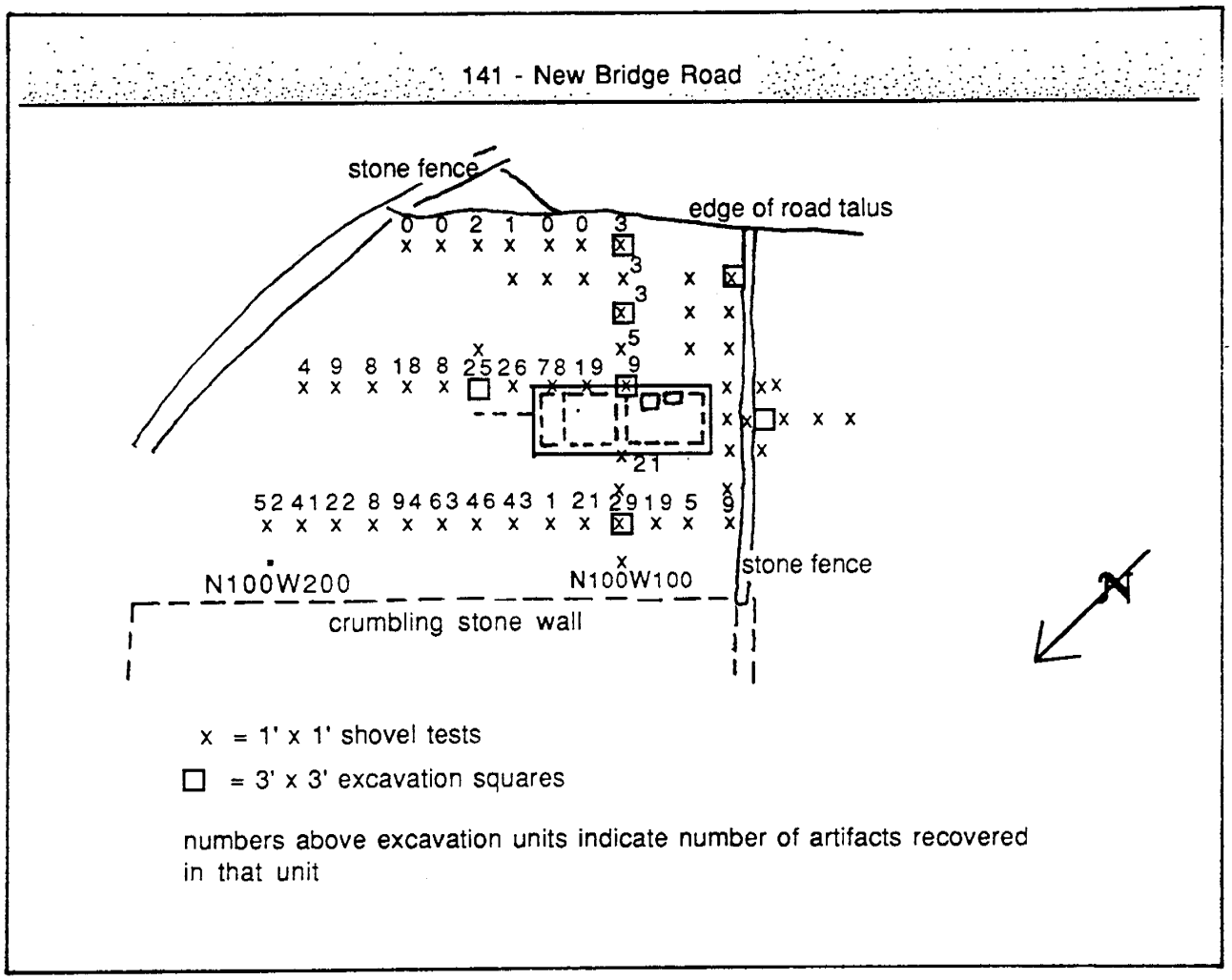
The Dwelling H site boundaries were defined by a stone fence to the northeast (grid west), the stone retaining wall to the west (grid south), a midden deposit lying outside the southern stone fence (grid east), and finally the Route 141 road embankment to the east (grid north) (Figure 29).

The site grid was established from Station 0, a transit station used in the DelDOT transit survey. Here, a wooden stake was placed in the ground and was arbitrarily designated as N100W100. From this point, the base line was extended toward Route 141 through the structure, nearly bisecting the grid south wall. The grid south wall of the structure is 20.0 feet from Station 0.

Sixty shovel tests were excavated across the site to investigate the artifact distribution surrounding the house and to locate trash or midden deposits and other associated features. The shovel tests were one foot square and each was excavated throughout the A horizon to sterile subsoil. The soil profile in most of these shovel tests consisted of an A horizon resting on a B horizon. In instances where the profile exhibited anomalies that indicated possible features or midden, 3' by 3' test pits were opened for better control. The excavation units are shown in Figure 33 with the artifact totals above each shovel test. Two concentrations of artifacts were revealed from this testing. One was located on the side of the stone fence adjacent to the house. Shovel test N140W65 revealed a midden deposit which is interpreted as a refuse disposal area. This shovel test was expanded to a 3' by 3' test pit still designated as N140W65 and the soil profile (Figure 34) shows two distinct artifact rich zones which rest on a silty clay subsoil. The upper zone, Level 1, is a very dark brown (10YR2/2) silt loam with a large amount of glass, metal, ceramics, bone and brick fragments. This was interpreted as an A horizon. Level 2 had a different soil matrix consisting of a 10YR4/4 silty clay loam. Artifacts were still very abundant. The surrounding shovel tests show that the midden deposit is restricted to an oval shaped area measuring 20 by 15 feet. An erosional gully has truncated the southern portion of the deposit. The midden is restricted to the area immediately across the fence (magnetic south, grid east) from the structure.

The A horizon from all of the shovel tests combined had a Mean Ceramic Date of 1851.38. The ware type distribution breaks down as follows: whiteware made up the major ware type, consisting of 163 sherds (54.33%). This was followed by coarse red earthenware - 62 (20.67%), pearlware - 29 (9.67%), porcelain and ironstone each with 14 sherds (4.67%), refined stoneware - 7 (2.33%), yellowware - 5 (1.67%), stoneware - 4 (1.33%), and coarse buff bodied earthenware - 2 (.67%). The ware type on two additional sherds

FIGURE 33
DWELLING H
Location of Extended Phase I Test Units



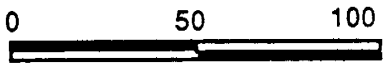
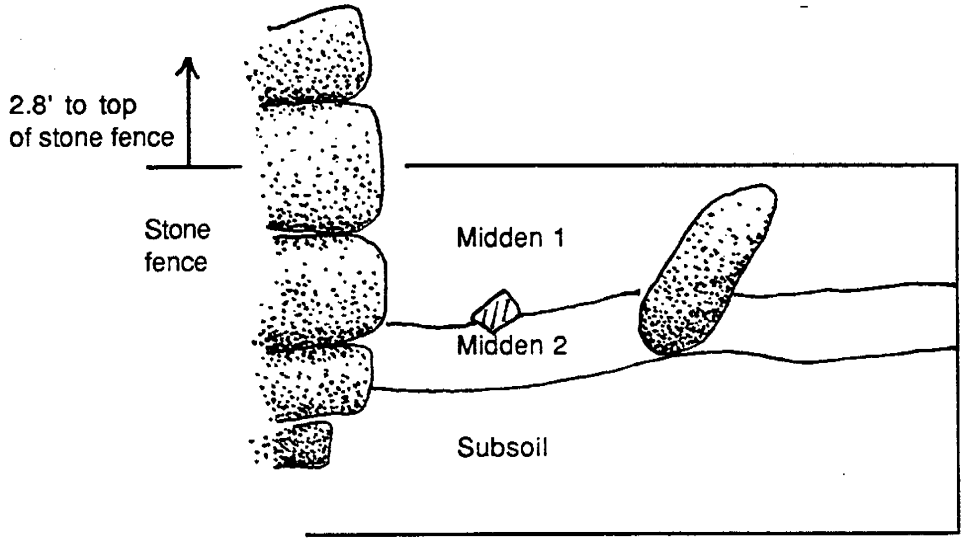


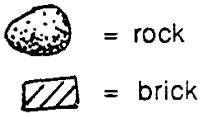
FIGURE 34
DWELLING H
N140W65, Soil Profile of North Wall

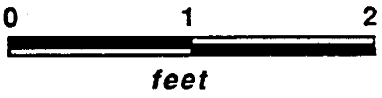


Midden 1 10YR2/3 - silty loam, grey black - loose fill, west side of unit shows traces of ash. Lots of glass, metal, nails, some bone, ceramics & brick

Midden 2 10YR4/4 - compact yellow/orange soil; many artifacts, some brick

Subsoil 10YR4/6 - orange yellow clay, no artifacts





could not be identified as they were burned too badly. Also recovered were both machine made and mold blown glass as well as modern debris such as cigarette filters and plastic. A victrola record and a Hutchinson stopper were also found in this context.

South's function groups from the A horizon in the shovel tests break down as follows: Group 1 (kitchen) - 1,528 (43.19%), Group 2 (architecture) - 816 (42.06%), Group 3 (furniture) - 2 (.10%), Group 4 (arms) - 2 (.10%), Group 5 (clothing) - 15 (.77%), Group 6 (personal) - 11 (.57%), Group 7 (tobacco pipes) - 4 (.21%), and Group 8 (activities) - 39 (2.01%).

The midden deposit had a Mean Ceramic Date of 1841.11. The ware type distribution in the midden is as follows: coarse red earthenware made up the largest percentage with 60 sherds (37.97%), followed by whiteware - 37 (23.42%), pearlware - 27 (17.09%), ironstone - 24 (15.19%), and stoneware, refined stoneware, and porcelain all had 3 sherds (1.90%). One sherd was burned and the ware type could not be determined and 1 sherd of yellowware was present (.63%).

South's function groups for the midden show Group 1 (kitchen) comprising the largest group with 298 items (59.96%), followed by Group 2 (architectural) - 177 (35.61%). Group 3 (furniture) was represented by 1 item (.20%), Group 5 (clothing) by 12 items (2.41%), Group 6 (personal) by 1 item (.20%), Group 7 (tobacco pipes) by 7 items (1.41%) and Group 8 (activities) by 1 item (.20%). Group 4 (arms) was not represented in this assemblage.

Another concentration of artifacts was noted above the retaining wall below the house. This doesn't appear to be a primary refuse disposal area, however. It may be where debris has collected over time, washing downslope from the house and yard area and stopping at the wall.

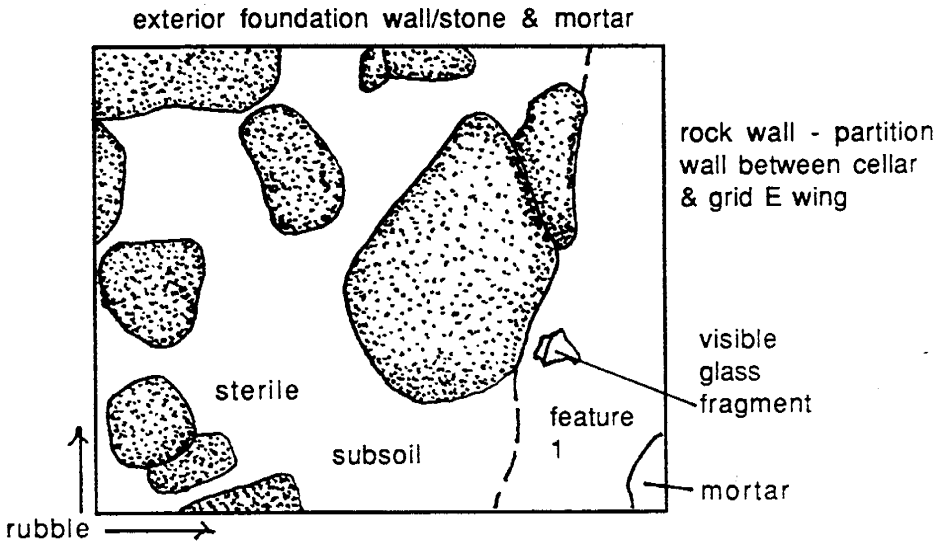
Three 3' by 3' test pits were excavated between the house and the Route 141 road embankment to obtain soil profile information (Figure 33). The shovel testing results yielded a low concentration of artifacts from this area. N180W70 fell within an area heavily disturbed from a buried sewer which runs parallel to Route 141 at the base of the road embankment. N170W100 is located approximately 20 feet grid north of the structure. Here a thin layer of fill was found over a buried organic zone. This organic zone is actually the A horizon observed over the rest of the site and which has been buried by modern fill. The fill consisted of a dark yellowish brown silt-clay which is also interpreted as coming from sewer or road construction. The buried A horizon was 0.4 feet thick and contained very few artifacts. N150W140 is located approximately fifteen feet from the northwest (grid) corner of the structure. This unit contained a moderate amount of artifacts including an almost complete clay pipe. The profile shows an organic A horizon resting on sterile subsoil. No features were encountered in any of the three test pits.

Three excavation units were placed in the interior of the structure (Figure 33). Unit A was placed at the grid northeast corner of the main portion of the house containing the cellar. Demolition fill consisted of predominantly building stone and mortar with soil content increasing with depth. This fill was excavated in three levels with a combined depth of three feet from the surface of the demolition fill. Level 1 of the demolition fill in Unit A contained 10 whiteware sherds and 2 pearlware sherds, as well as 2 fragments of bottle glass and 10 fragments of window glass. None of the bottle glass was diagnostic. In addition, 12 bricks, 168 fragments of roofing tar, 14 cut nails and other miscellaneous artifacts were also recovered. Level 2 of the demolition fill in Unit A contained no ceramics, 2 fragments of bottle glass, 10 window glass fragments, 7 can fragments, 2 wire nails, and fragments of roof tar, brick and mortar. Level 3 of the demolition fill in Unit A contained no ceramics, 17 pieces of bottle glass, 73 window glass fragments, 1 cut nail, mortar and roofing tar. Some of the bottle glass was mold blown and had evidence of the use of a snap case which dates it from 1857-1903. Some panel bottle fragments were also found. These date from 1867 to the present. A stacked pile of bricks was found near the base of the second demolition fill level, resting on an in situ midden deposit. The bricks were probably stacked here prior to demolition. The midden on which they rested is interpreted as an occupation level and the cellar is interpreted as having a dirt floor. Artifacts recovered from the midden level included 1 can/thin metal fragment, 5 glass container fragments and 9 fragments of window glass. Some of the container fragments were from a panel bottle and date from 1867-present. At the base of this level, a sterile silty clay subsoil was reached. At this point, a narrow trench was found running against and parallel to the interior of the south wall, penetrating the subsoil. It followed this wall beyond the limits of the excavation unit. The portion exposed by Unit A was designated Feature 1 and it was excavated. The artifacts recovered from this feature were predominantly glass bottle fragments including several necks. None of the glass fragments from this feature was definitely machine made. Those bottle fragments on which the method of manufacture could definitely be determined were mold blown and some showed evidence of the use of a lipping tool. These would date from 1850-1903. Some showed evidence of the use of snap case and date from 1857-1903 and some were from two-piece molds dating at 1840-1903. The feature matrix consisted of a dark yellowish brown silty loam. The surrounding subsoil was a yellowish brown clay. No ceramic fragments were included in the feature fill. Figure 35 shows the plan and profile of Feature 1.

Two other excavation units were excavated in the east (grid) wing; these are Units B and C. There is no cellar here and no in situ deposits were found inside. A floor joist ledge was noted. Demolition fill was found in stratified deposits beginning nearly a foot above the floor joist ledge. Level 1 in the demolition fill in Unit B contained 2 refined redware sherds, 1 stoneware sherd, 1 yellowware sherd and 10 whiteware sherds. Other artifacts

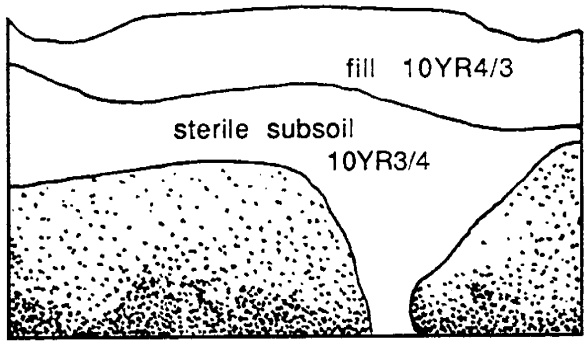
FIGURE 35
DWELLING H, FEATURE 1
Plan & Profile

PLAN



Feature 1 - 10YR3/4, dark yellowish brown silty loam
Subsoil - 10YR4/6, yellowish brown (but orangier) clay

PROFILE



= rock

0 1 2
feet

N

recovered include 10 fragments of bottle glass, 28 window glass fragments, 3 can fragments, a knife fragment, 21 cut nails, 2 wire nails and bricks, mortar, roofing tar, buttons and clay pigeon fragments. Diagnostic glass included machine made (1903-present), pressed (1827-present) and panel bottle (1867-present). Level 2 from the demolition fill in Unit B contained 1 coarse red earthenware sherd, 1 stoneware sherd, 1 refined stoneware sherd, 16 pearlware sherds and 6 whiteware sherds. Eleven bottle glass fragments and 19 window glass fragments were also found. The bottle glass contained examples of machine made glass, panel bottles and mold blown glass. The mold blown glass showed evidence of the use of a lipping tool and would date from 1850 - 1903. Level 3 in the demolition fill from Unit B contained 2 cut nails. Level 1 of Unit C in the demolition fill contained 3 kaolin pipe fragments, 1 refined redware sherd, 2 pearlware sherds and 2 whiteware sherds as well as 12 bottle glass fragments and 35 fragments of window glass. The bottle glass was machine made, dating from 1903-present. Other artifacts recovered include 4 can fragments, 27 cut nails, 26 wire nails, a pearl button, mortar, tar and clay pigeon fragments. Level 2 of the demolition fill in Unit C contained 1 yellowware sherd, 2 pearlware sherds and 4 whiteware sherds, as well as 2 fragments each of bottle glass and window glass. The bottle glass was from a mold blown bottle that showed evidence of the lipping tool and dates from 1850-1903. Level 3 in the demolition fill of Unit C contained 1 sherd each of refined redware, ironstone and pearlware as well as 1 fragment each of bottle glass and window glass. Sterile subsoil was found underlying this fill, slightly below the floor joist ledge.

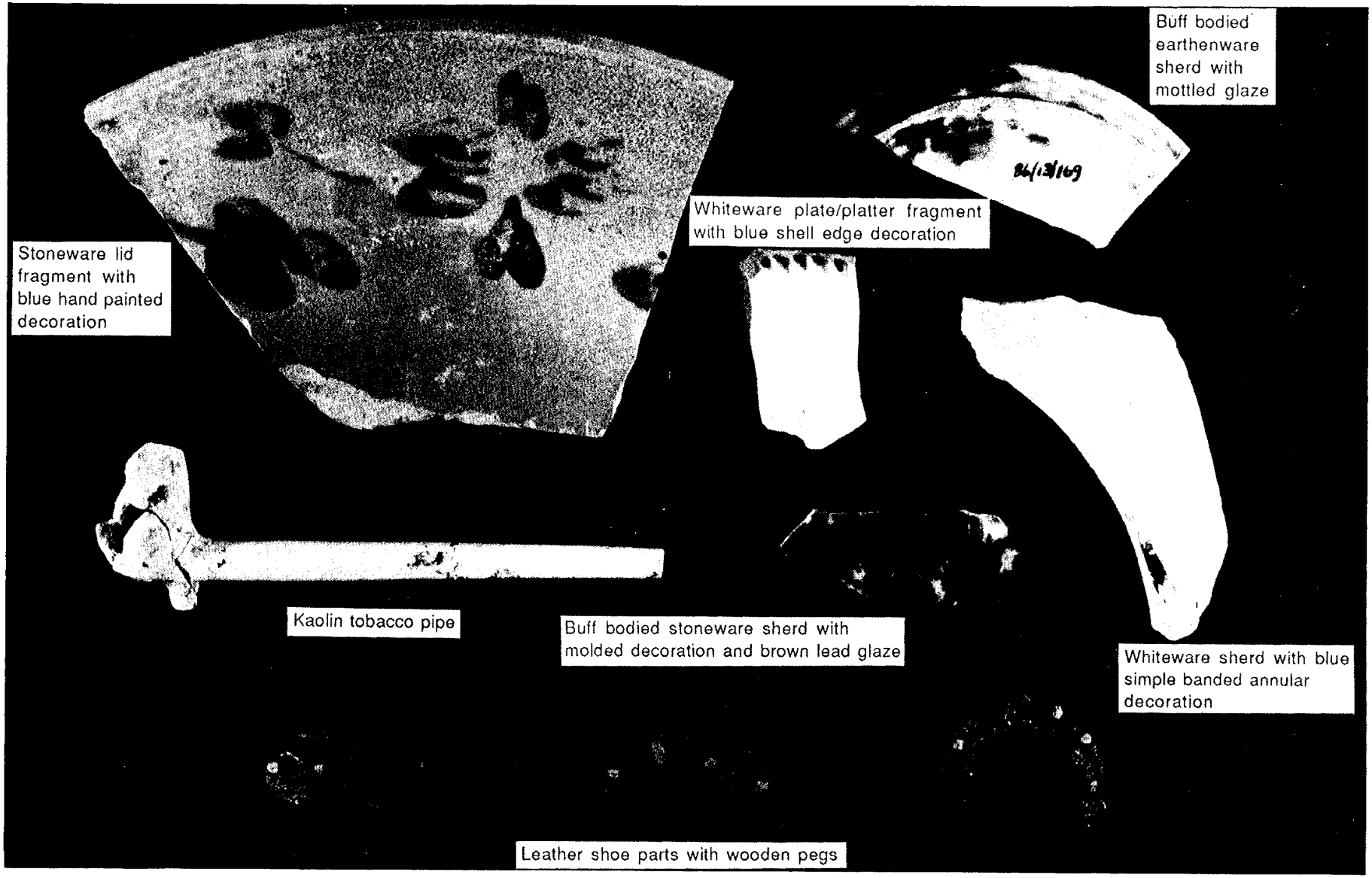
The demolition fill from all levels in all three units had a Mean Ceramic Date of 1839.09 (68 sherds) and the ware type distribution breaks down as follows - whiteware comprised the most frequent ceramic type with 32 sherds (47.06%). This was followed by pearlware - 22 (32.35%), ironstone - 5 (7.35%), refined redware - 3 (4.41%), stoneware and yellowware each with 2 (2.94%), and coarse red earthenware - 1 (1.47%).

South's function groups for all of the demolition fill levels combined break down as follows: Group 1 (kitchen) - 161 (14.92%), Group 2 (architectural) - 846 (78.41%), Group 3 (furniture) and Group 4 (arms) - 1 each (.09%), Group 5 (clothing) - 6 (.56%), Group 6 (personal) - 1 (.09%), Group 7 (tobacco pipes) - 3 (.28%) and Group 8 (activities) - 60 (5.56%).

Dwelling H: Summary of Excavation Results

Extended Phase I excavations at Dwelling H revealed two concentrations of artifacts on the exterior of the house. A refuse midden was found on the grid east side of a three foot high fence adjacent to the structure. A second concentration, which may be a secondary deposit resulting from the accumulation of slope wash material was found above the retaining wall below the structure. Finally, the central portion of the structure contained a cellar. Excavation Unit A revealed approximately three feet of demolition

PLATE 14
Dwelling H Site Artifacts



fill resting on an in situ occupation level. Feature 1, a narrow trench penetrating the subsoil, was partially excavated and revealed several glass bottle fragments including several neck portions.

The Mean Ceramic Date for Dwelling H as a whole was 1846.56. Whiteware was the most frequently occurring ware type at the site - 321 (44.34%), followed by coarse red earthenware - 165 (22.79%), pearlware - 98 (13.54%), ironstone - 70 (9.67%), porcelain - 23 (3.18%), stoneware - 21 (2.90%), yellowware and other coarse earthenware - 24 (3.31%).

South's function groups for Dwelling H as a whole are as follows: Group 1 - 1,528 (43.19%), Group 2 - 1,843 (52.09%), Group 3 - 4 (.11%), Group 4 - 3 (.08%), Group 5 - 33 (.93%), Group 6 - 13 (.37%), Group 7 - 14 (.40%), Group 8 - 100 (2.83%). Plate 14 shows artifacts from Dwelling H.

Recommendations

Based on the work reported here, additional archeological excavations are recommended for Dwelling H to gather information concerning the lifeways of mid to late 19th century industrial workers. In conjunction with Long Row and Pigeon Row, Dwelling H may provide information concerning ethnicity, material consumption patterns and dietary patterns of individuals who worked in the early industries which formed the backbone of New Castle County. The Dwelling H residents were most likely employed at either the Keg factory or the powder mill across the Brandywine. Additional archival work should also be conducted as it is probable that information concerning specific occupants of the structure is available.

Results of Extended Phase I Excavation, Cistern B (7NC-B-8)

Cistern B is an oval shaped, stone lined feature which measures fourteen by sixteen feet on the interior. It is located south of the Route 141 bridge (Figures 7 & 29). Its function is interpreted as a cistern; however, no records or archival documentation could be found to confirm this. Plates 15 and 16 show Cistern B in plan and profile. Excavations on both the interior and the exterior were of no help in dating the feature as few artifacts were recovered, even though substantial quantities of soil were excavated and screened. Trenches were excavated across the feature (Figure 36), one through the center on the east/west axis and the other across the front, perpendicular to the first. Several other excavation units were completed on the exterior of the feature with similar results.

The profile of the east/west interior trench is shown in Figure 37. The interior was filled with two feet of decaying leaves. Artifacts recovered from this level include some modern bottle fragments which were undoubtedly thrown in from the bridge. Bedrock, or perhaps a large boulder, was found at the base of the

PLATE 15
Plan View of Cistern B Site

West view

PLATE 16
Profile View of Cistern B Site

East view

FIGURE 36
CISTERN B
Plan Map

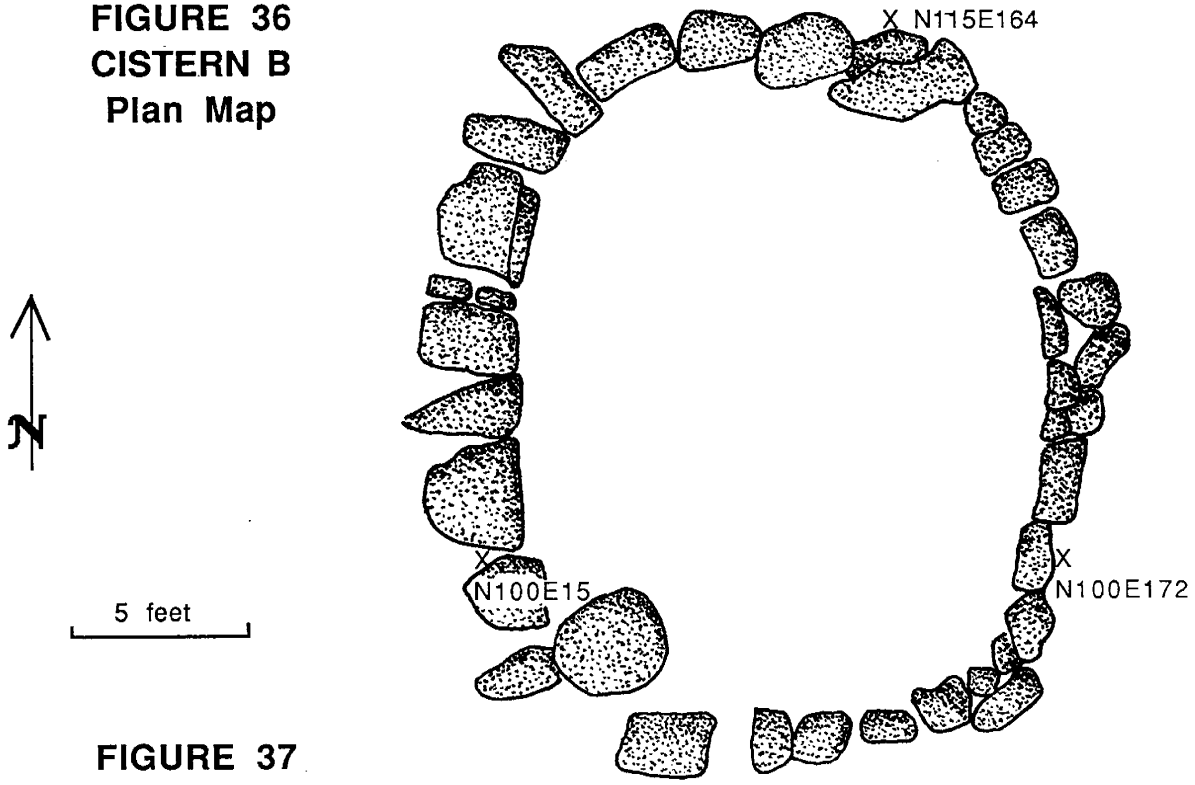
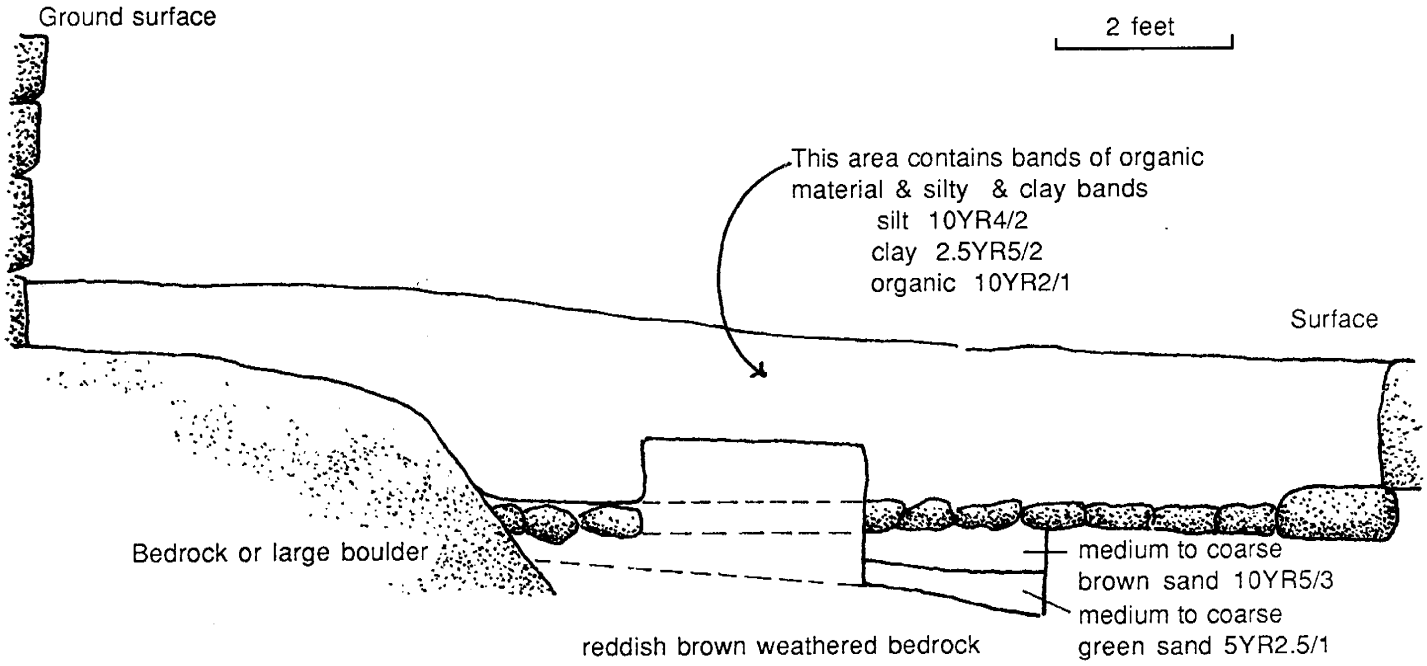


FIGURE 37
CISTERN B
Cross-section Profile,
East Wall



leaves at the eastern third of the interior. The rest of the interior revealed a layer of small rocks resting on a brown (10YR5/3) coarse sand which was 0.5 feet thick. Below this layer was a 0.4 foot thick medium to coarse sand. It was a dark olive gray (5Y3/2) medium to coarse sand. A two by two foot section of these sand layers was water screened; however, no artifacts were recovered. A spring head feeds the cistern and water was continually seeping into the excavation units on the interior which had to be repeatedly bailed out. When left overnight, the cistern filled with water to its upper edge.

One hypothesis concerning the function of the cistern is that it may have been installed to provide an alternative supply of water to the workers who lived at Walkers Bank. The only clue as to the age of Cistern B is in its construction. Most of the stone used is quite large, typical of the size used in the many stone fences which line the countryside. No concrete or mortar was used and no plumbing or piping was exposed. There was no evidence for a spring house covering as no postmolds or wood were recovered from the excavation units. Unless an obscure reference to the feature can be recovered through documents, or time sensitive artifacts are recovered in other excavations, the date of construction will remain a mystery.

Summary and Recommendations of Extended Phase I Testing, Cistern B

Summarizing, Cistern B was an oval, stone lined feature which was interpreted by us as a cistern. Excavations within and around this feature did not provide significantly more information about the feature and artifact yield was extremely low. The feature could not be dated, either based on the artifacts or on archival evidence. No additional archeological work is recommended for Cistern B as the information potential is negligible. The research potential of the feature has already been obtained through the Extended Phase I excavations.

Results of Archival Investigations, Walkers Bank (7NC-B-8)

Sometime prior to 1710 Cornelius Empson acquired a tract of land called "Horse Hook" in Brandywine Hundred. Empson owned a number of tracts of property in New Castle County (see the following discussion of the Weldin Tract), and in his will in 1710 he left the Horse Hook Plantation, in the Manor of Rockland containing 30 acres, to his son James (Will B:224). In 1720 the sheriff transfers two tracts "seized and taken as the land of Cornelius Empson, in the hands of Ebenezer Empson, Exector" to Joseph Wood (C3:397; see also discussion of Weldin Plantation). Wood appears to be functioning as a trustee of some kind in this transaction, since within a couple of months he sells this property to Ebenezer Empson for £127. It may be that there was some problem involved in settling the estate involving James, since that name does not appear again in the documentary history of this property.

In 1726, Ebenezer makes his will, which is probated in 1744 (Will Q:21). The tenth item in that will calls for trustees to sell the Horse Hook tract to John Bird and David Enoch of Brandywine Hundred, provided that they fulfill an unspecified agreement that existed between them and Ebenezer. The tract is now described as containing 160 acres, and there is no clear accounting of the discrepancy between the description in this document and that in Cornelius' Will (see above). It is possible that the true size of the property was not known in 1710, or that Cornelius' was deliberately trying to conceal its size. The trustees John Richardson and Adam Buckley had sold the tract to Thomas Bird "the Elder" for £140 sometime after Ebenezer's death, but the property was not conveyed, so in 1755 William Empson and his wife Martha made a deed to Bird (S:133) acknowledging Bird's payment and relinquishing the claims of all the children.

In 1776 Thomas Bird makes his will and directs that his plantation on the Brandywine, bounded by John Husbands, Peter Woolbaugh and Joseph Elliott, be sold after the death of his wife and the proceeds divided equally among his son John and his three daughters (Will L:35). The property is described as containing 150 acres, more or less. John Bird, III, executor of Thomas Bird's estate, sells the tract to his brother-in-law William McClintock in 1793 (N2:245). Early in the next year William McClintock sells the tract, now described as containing only 130 acres to Nicholas Way and Jacob Broom, for $4,066,67 (M3:251). The same tract is sold in 1805 by John Way, heir of Nicholas, and Jacob Broom to Samuel Love for $4,000, but in this sale, Way and Broom reserve the right to erect a dam (F3:216). It is not clear if a precise location is indicated, but it seems likely that Gilpin has already constructed a dam near the downstream end of the property, so this reservation may be anticipating the impoundment at the Hagley Yard. It may be observed at this point that no very precise metes and bounds have been provided for the property in any of the various sizes in which it has been reported in the documents, although there is consistency in the descriptions of the bounding property owners.

Samuel Love and his wife Margaret sell a 92 3/4 acre tract to Caleb Kirk for $4670 in 1812 (Q3:295), and for the first time metes and bounds which can be plotted on the modern landscape are given (Figure 8). This tract clearly includes the entire bend of the river that surrounds Walker's Mill, and the previous property history, described above, is also given. The next day after Kirk acquires the land, he sells a 48 acre 34 perch section of it to Eleuthere Irenee duPont deNemours, and the deed includes water rights to the Brandywine that Kirk purchased from Way and Broom (£3:414). The tract includes the site of Walker's Mill and is marked "5" on Figure 8. DuPont subdivides the tract again and sells 10¼ acres of it, including the mill site, to Peter Bauduy for $2350 in 1813 (N3:111 - Figure 8). This deed also mentions boundaries that include "other land now conveyed to Bauduy" which would appear to include at least part of the remaining tract that E. I. duPont had acquired from Kirk. This remainder would include

the site of the Keg Mill and apartments discussed below. No other deed could be located for such a transfer, however.

Bauduy, along with about forty other families in Wilmington, was an expatriate from Haiti. These French had fled the island of Hispaniola in the West Indies following a successful slave revolt, and they made an impression on the popular culture of the state (Munroe 1954:149-50). They were natural points of contact for the duPont's when they arrived from France, and Bauduy became a partner in the powder mills. He later had a falling out with E. I. duPont over the operation of the business and initiated a protracted lawsuit against him. He himself suffered from hostile litigation as an 1830 deed for the Louviers Mill indicates. In 1815 a Thomas Baduin obtains a judgement against him for a debt of $40,000, which is ultimately endorsed to the Bank of Wilmington and Brandywine (M4:94).

In 1813, in partnership with four other "gentlemen", E. I. duPont purchased the other half of Caleb Kirk's 92 acre tract on the east and downstream side of the Walker's Mill tract (14:379), labelled "Allotment No. 1 of the Brandywine Co., 41 Ac. 7 P." on Figure 8). Bauduy, in turn, sells the ten acre tract containing the site of Walker's Mill to Joseph B. Sims, a Philadelphia merchant, for $10,000 (T3:82), realizing a considerable profit on his $2350 investment. He also holds a mortgage for it from Sims (T3:82). Sims improves the property in 1814 by building a textile mill on it, which he rents to John Siddall and Company for the manufacture of cotton yarn, muslin, check and plaid (Sisson 1980:7). The tax assessment of 1816 indicates that the "Joseph B. Sims estate" contains "4 tenements" as well as the large cotton factory, and a separate listing for "Thos. Siddal" gives three stone tenements. As mentioned in the discussion of the Row Houses, American manufacturers had difficulty competing with Europeans and by 1817 Siddall was bankrupt (Sisson 1980:7). E. I. duPont acquires the Walker's Mill property in 1831 from the Wilmington and Brandywine Bank, suggesting that Sims or a subsequent owner had suffered a financial reversal, though no specifics were uncovered.

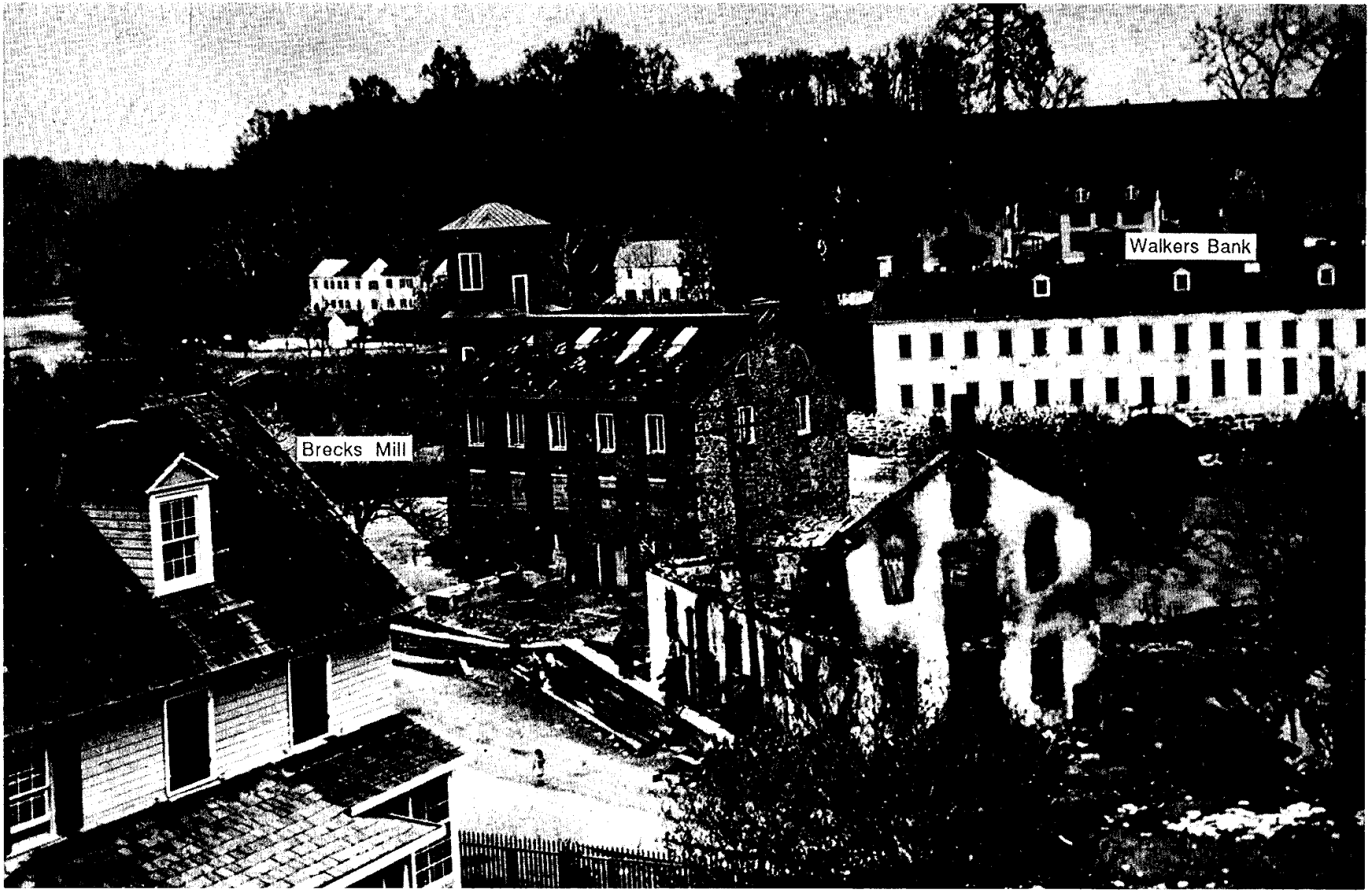
A similar fate befalls a number of other operators, including Robert, William and Thomas Hilton. A deed from the Sheriff to John Newman reports that they defaulted on a note of $8,160.39 to James Brown, Lea Pusey, and William Welsh (A5:340). John B. Newman of Philadelphia acquires the property in a court-ordered sale in 1838 to satisfy the debt, but there is no indication of how they acquired the property. Newman sells it to Andrew Adams, a merchant of Philadelphia (B5:433), in the same year that he acquires it, but it could not be determined that its ownership history was between the time that Sims acquires it and the Hiltons' ownership in 1838. Newman sells the ten acre tract to Adams for $3200, including the "Cotton Factory & other buildings thereon erected". Adams also agrees to pay off $7300 of the Hiltons' mortgage. Adams attempts to operate the mill apparently fail and in 1848 the mill is leased by Joseph Walker, by whose name the mill is now known (Sisson 1980:8).

The tax assessments clearly indicate that there were a number of tenements built to house the mill workers at Walker's Mill shortly after the mill itself was built, but only the mill structure is shown on the Rea & Price map of 1849 (Figure 9). By the time the Lake and Beers map is published in 1860 several additional structures are mapped, though the location of a fold in the copy of this map available to us prevents a precise count (Figure 10). The Beers Atlas map of Brandywine Banks (1868; Figure 11) shows the mill building, labelled "Woolen & Cotten Factory", with four structures east and south of it, and three additional structures further north. These may correspond to the total of seven "tenements" mentioned in the 1816 tax assessment book. The 1881 Hopkins Atlas map (Figure 31) shows a similar arrangement of buildings, though only six potential tenements are shown, and these have expanded to eleven according to the Baist Map of 1893 (Figure 12). The latter map shows the mill labelled "Barlow and Thatcher Spinning Mill." The 1903 correction of Frazier's map of DuPont's Brandywine Properties (Figure 8) shows seven buildings behind the mill which correspond more or less to the ones shown on the Baist Map, with the items omitted being the buildings closest to New Bridge, on a separate property tract labelled "Peter B. Delaney". Alfred duPont had acquired this small tract (three acres) in 1814 as the result of a sheriff's sale resulting from a judgement against the estate of Caleb Kirk (14:371). There seems little doubt that they were present when the map was made, since they were mapped previously on Baist, and are still present in that location.

Photographs from the turn of the century are consistent with the map data in that several dwellings that are no longer standing, in back of and upstream from Walker's Mill, can be observed. Directly behind the Mill in a photograph of the Rokeby Mill Fire, 1906 (Plate 17), stand three "single-family" style dwellings. These were likely to have been divided into two or more apartments. Further upstream are three "row house" style dwellings, and outbuildings are visible along the retaining wall, above the road that runs on up the east side of the Brandywine toward the Keg Factory. Various sources describe all these dwellings as occupied by mill workers. These may conceal privies, wells and/or springs. The privies are shown more clearly on Plate 18. The foundations of some of these features and the retaining wall are still clearly evident in the underbrush along the road.

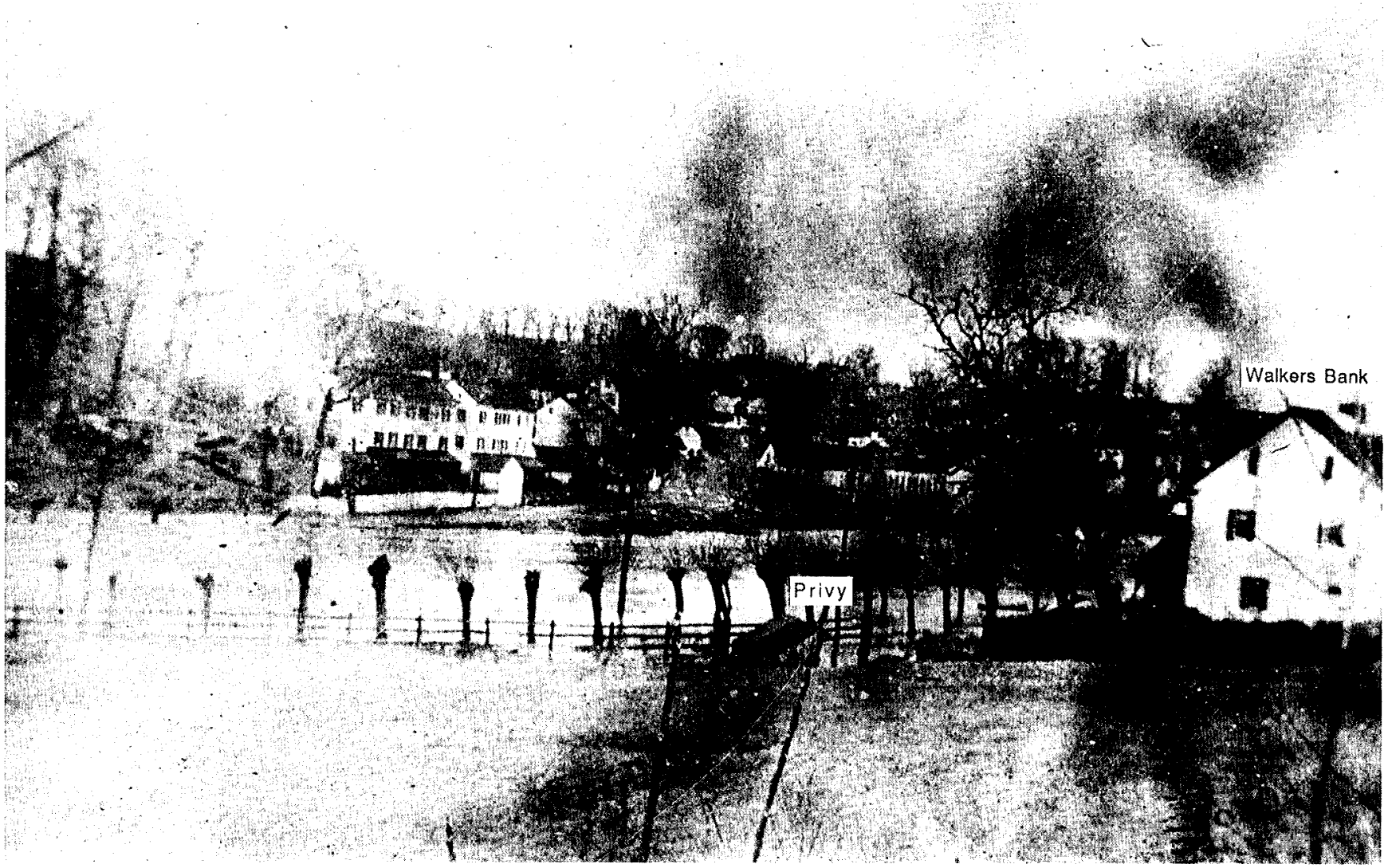
To summarize the remainder of the property history, Sisson states that by 1844 the mill is owned by the E. I. duPont Company (Sisson 1980:7), but no further transactions relating to this property could be located in the documents. By 1874 it is included among a large group of properties transferred from Victor DuPont to Henry, Eleuthere, Lammot and Eugene DuPont (110;199), so it was absorbed into the duPont holdings prior to that time. A number of textile manufacturers operate in the mill and it continues to produce until 1938, so, in spite of its checkered history, it remained the last operating mill on this part of the Brandywine.

PLATE 17
1906 Rokeby Mill Fire with Walkers Bank House in Background



Northeast view

PLATE 18
Privies by Walkers Bank House



Northwest view

Results of Extended Phase I Excavations, Walkers Bank (7NC-B-8)

The transit mapping survey conducted by DelDOT prior to the extended Phase I investigations made it possible to identify the ruins along Walkers Bank (Figure 29). Although hidden by heavy underbrush, the foundations of three buildings were identified (Plate 19). It was also possible to discriminate between exterior retaining walls and the structure walls. Finally, two stone lined wells were discovered during the mapping. Figure 29 shows the results of the mapping survey. The location of the retaining walls, structure walls and wells are indicated. One of the wells is located on the road level just below a retaining wall. It is within 10 feet of the dirt road edge. A retaining wall on the lower side of the road was originally present from Walkers Bank to the Keg Mill area; however it is buried under fill for most of the distance between Walkers Bank and the 141 bridge. This wall was uncovered in a number of test pits (discussed below) along this stretch.

Extended Phase I test excavations were restricted to testing below the road and retaining wall for refuse associated with the Walkers Bank occupation. Sixteen shovel tests were excavated from Walker's Mill to the Route 141 bridge. Station E from the mapping survey was used to establish a grid baseline. It was assigned the coordinates N500E100. The traverse line between Station E and Station D was used as the grid north line. Its true magnetic bearing is N28°30'E. Test pit N70E85 was the southernmost unit and was located near the mill race feeding Walkers Mill. The northernmost unit was near the 141 bridge at Station D, N774E100. As was expected, the units closest to the retaining wall and road revealed the greatest concentration of artifacts. Figure 38 shows the placement of test units and the extent of the midden based on their results. The midden was found from N110E95 to N500E100. As Figure 38 shows, these are the units below the road immediately across from the houses. Refuse was simply dumped over the wall at the nearest distance for disposal. The artifact concentration dropped off dramatically as the distance from the wall the creek was increased where alluvial silts and sands were present to considerable depths. The units within the disposal area were typically stratified with a number of silty sand lenses, each containing a high concentration of artifacts. Coal lenses were common and probably represent stove or fireplace refuse. The artifact bearing lenses were not generally very thick and are interpreted as isolated filling deposits rather than continuous soil horizons. The stratigraphy from unit to unit varied considerably and it was impossible to correlate horizons between test pits. This would be expected where refuse dumping has occurred in small quantities over time. Figures 39-41 show the profiles from three of the units within the refuse area. The depths of the midden deposits ranged from 2 to 4 feet.

The A horizon of the units had a Mean Ceramic Date of 1856.19. The ware type distribution for the A horizon breaks down as follows: whiteware - 70 (40.94%), ironstone - 41 (23.98%),

PLATE 19
View of Entrance to Walkers Bank House

East view

FIGURE 38
WALKERS BANK
Location of Shovel Tests

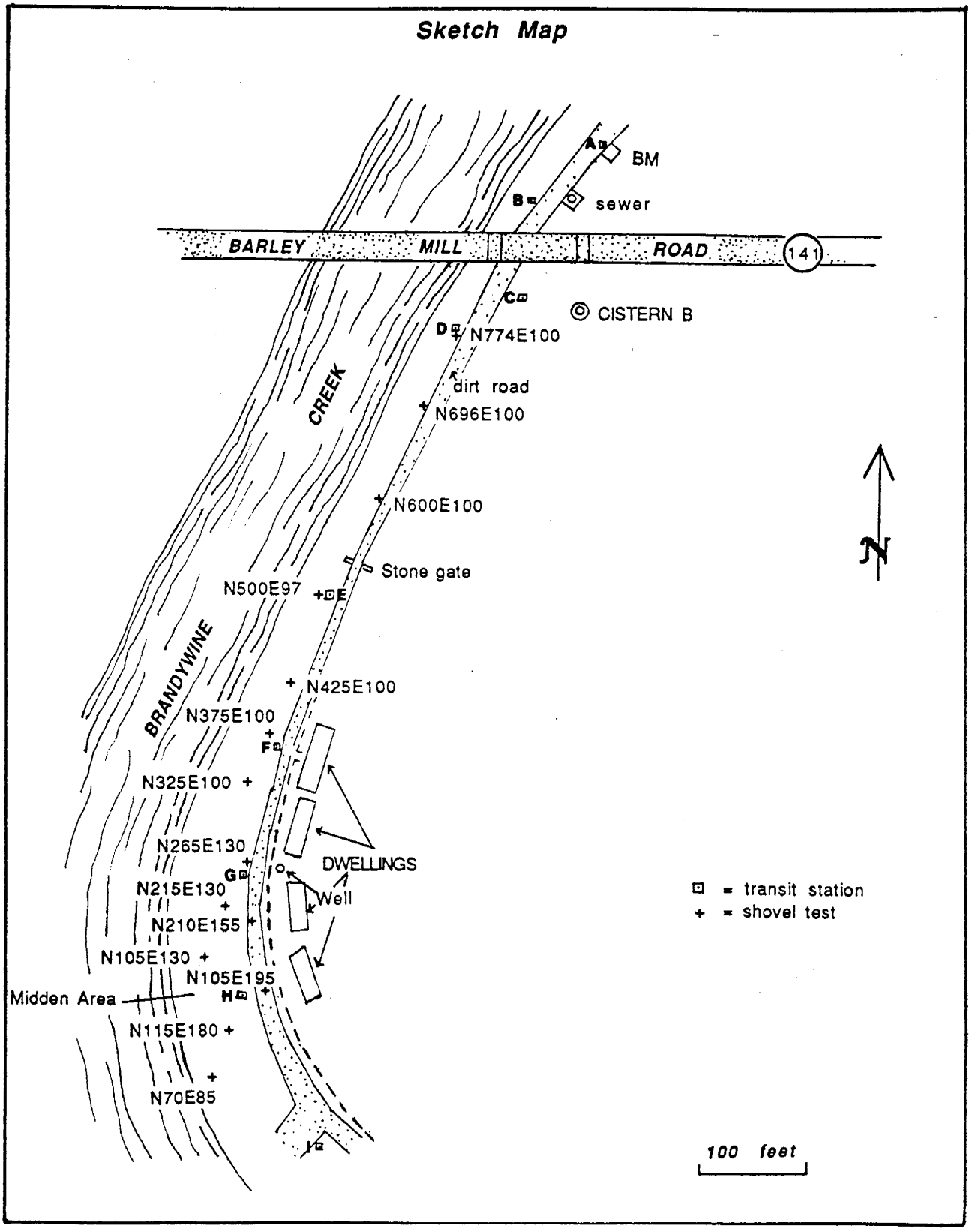


FIGURE 39
WALKERS BANK
N160E195
Soil Profile, West Wall

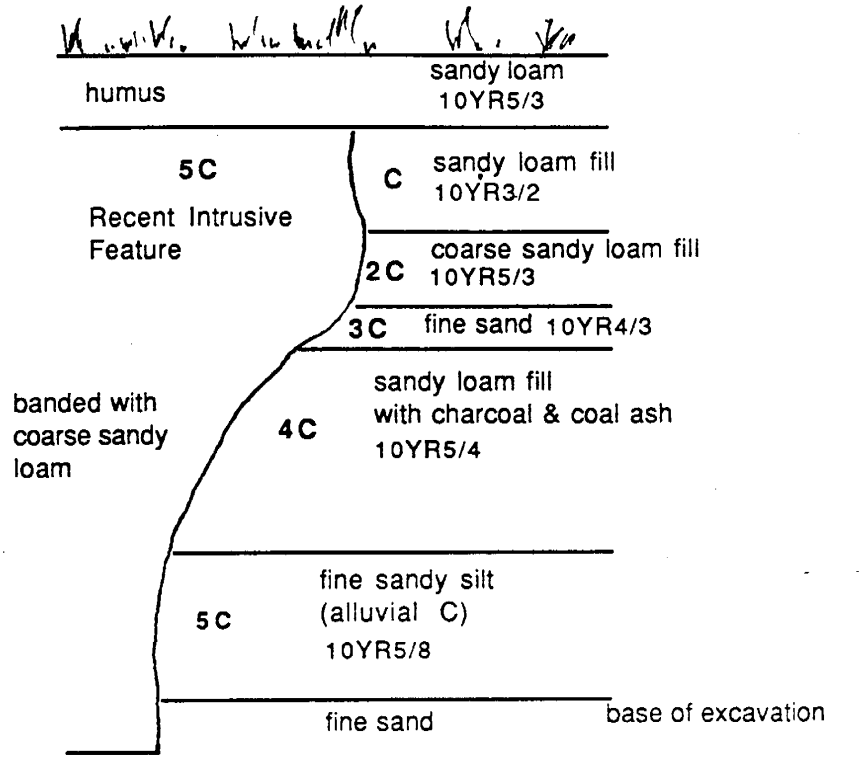


FIGURE 40
WALKERS BANK
N210E155
Soil Profile, East Wall

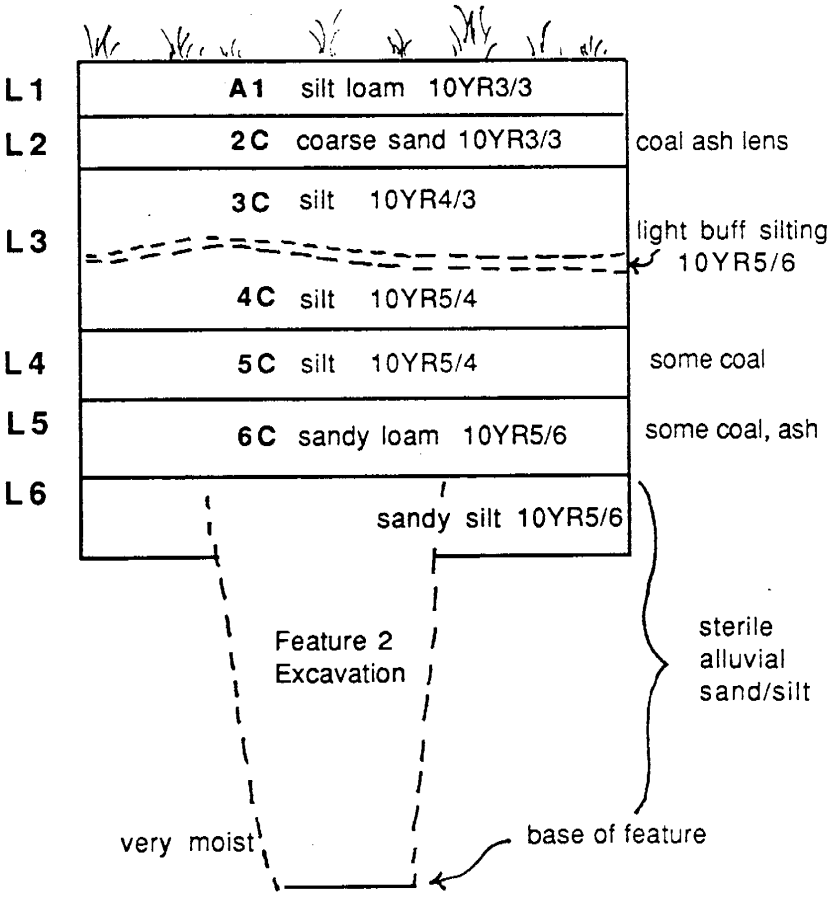


FIGURE 41
WALKERS BANK
N265E130
Soil Profile, East Wall

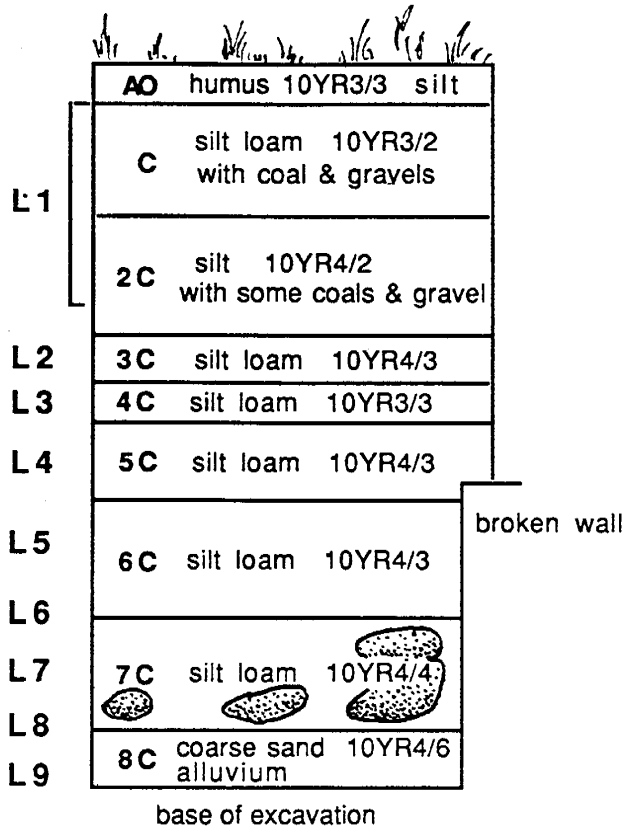
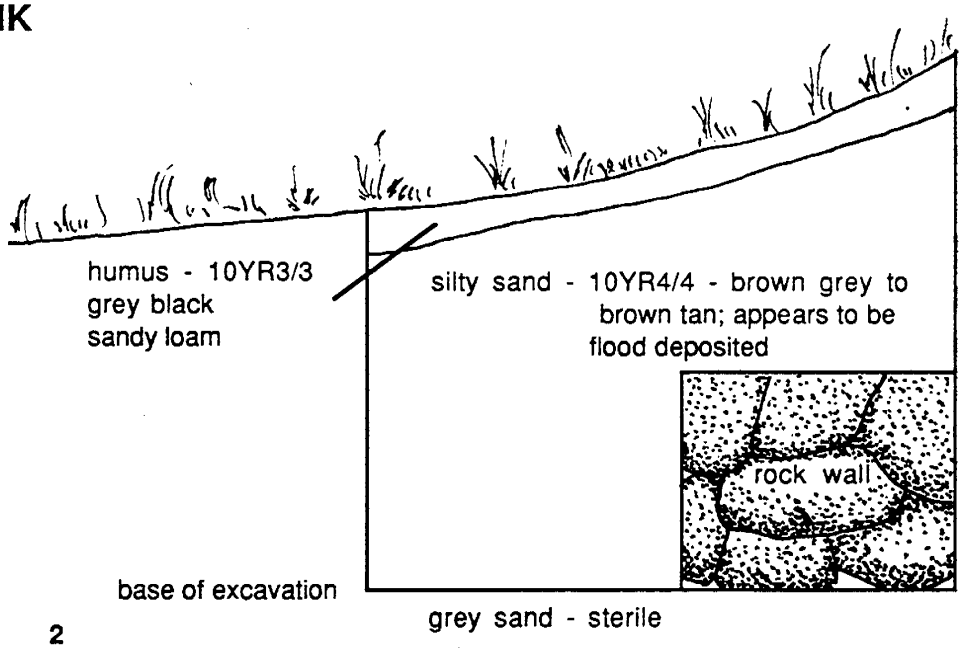
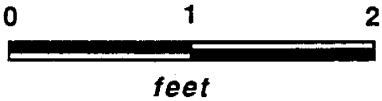


FIGURE 42
WALKERS BANK
N774E100
North Wall




= rock



porcelain - 37 (21.64%), coarse red earthenware - 19 (11.11%), pearlware - 3 (1.75%) and stoneware - 1 (.58%). Both machine made and mold blown glass was present in this group as well as a 19__ Lincoln Head penny, a 1957 Roosevelt dime and an 1856 Seated Liberty Half Dime. The A horizon also contained, in addition to machine stitched shoe parts, portions of a shoe heel with wooden pegs. Wooden pegs were used in the shoe parts of workers from the powder factory to avoid sparks caused by metal nails.

South's function group divisions for the A horizon are: Group 1 - 1,154 (78.18%), Group 2 - 261 (17.68%), Group 3 - 4 (.27%), Group 4 - 1 (.07%), Group 5 - 34 (2.32%), Group 6 - 5 (.34%), and Group 8 - 17 (1.15%). No items in Group 7 were recovered from this horizon.

The midden, taken as a whole, had a Mean Ceramic Date of 1838.05 and the following ware type distribution: coarse red earthenware - 648 (40.15%), whiteware - 420 (26.02%), pearlware - 285 (17.66%), ironstone - 112 (6.94%), creamware - 36 (2.23%), porcelain - 33 (2.04%), yellowware - 30 (1.86%), refined stoneware and other coarse earthenware - 14 each (.87%), stoneware - 12 (.74%), and refined redware - 10 (.62%).

South's Group 1 made up the major functional category in the midden with 3,960 (70.05%), followed by Group 2 - 1,526 (26,99%), Group 3 - 16 (.28%), Group 4 - 4 (.07%), Group 5 - 36 (.64%), Group 6 - 22 (.39%), Group 7 - 42 (.74%) and Group 8 - 47 (.83%).

In those units with a sufficient number of levels to penetrate 20th century deposits, there appears to be some temporal stratification. Level 1 of the units is not described here as it was the A horizon described above. In addition, only those units which are pertinent to the discussion are described in detail here. A full listing of the artifacts obtained from each level in each unit is present in the artifact inventory, Appendix I. In N160E195, in Levels 2-6, machine made glass is present and whiteware and/or ironstone is the dominant ceramic type with lesser amounts, if any, of pearlware. Although whiteware is still the dominant ware type in Level 7, there are significantly more pearlware sherds, in addition to some creamware sherds. No definitely machine made glass was present in this level. The glass, other than pressed and panel bottle fragments which have manufacture dates extending from the 19th to the 20th century, was mold blown. Level 8 contained 3 whiteware and 1 ironstone sherd, along with panel bottle and pressed glass fragments. A modern intrusion, which was excavated separately, showed up in the SW 1/4 of the square in Level 8. The intrusion in Level 8 contained 2 whiteware sherds, a pearlware sherd and a plastic band. Level 9 contained 3 whiteware sherds, 10 pearlware sheds, and a creamware sherd. No diagnostic glass was present in this level. The intrusion in Level 9 contained 4 whiteware sherds and machine made glass. Level 10 contained a single pearlware sherd. The SW 1/4 of the square in Level 10 where the intrusion was present in earlier levels contained a single creamware sherd.

In N210E155, Level 2 contained 3 whiteware sherds and no diagnostic glass. Level 3 contained 7 whiteware sherds, 4 pearlware sherds, 6 wire and 2 cut nails, a tin toothpaste tube and part of a mason jar (1858-present). Level 4 contained 21 whiteware sherds, 1 ironstone sherd, 3 pearlware sherds, mold blown (1810-1903), panel bottle (1867-present) and pressed glass fragments (1827-present), as well as a brass electrical switch. Level 5 contained 10 whiteware sherds, 9 pearlware sherds and panel bottle fragments. Level 6 contained 3 creamware, 20 pearlware and 17 whiteware sherds. No diagnostic glass was present in this level. A feature was also present in Level 6, designated as Feature 2. This feature contained 5 coarse red earthenware, 4 pearlware and a single creamware sherd as well as bottle and window glass and brick and can fragments.

In N265E130, Level 2 contained machine made and mold blown glass, 1 fragment of bx cable, 17 whiteware, 14 ironstone and 1 pearlware sherd. Level 3 contained mold blown glass, pressed glass, panel bottle fragments, 12 pearlware sherds, 7 whiteware sherds and 1 ironstone sherd. Level 4 contained panel bottle fragments, machine made glass, a plastic hair comb, 29 whiteware sherds, 26 pearlware sherds and 11 ironstone sherds. Feature 1 appeared in this level and the square was expanded to follow this feature. The expanded square designation is N262E130. Feature 1 contained 1 pearlware sherd, 10 whiteware sherds and 14 coarse red earthenware sherds. No diagnostic glass was present. Feature 1 also contained 4 coal fragments, 8 clinkers, 6 brick fragments, 18 can fragments, 12 unidentified nail fragments, a plastic button and a mechanical pencil fragment. It is interpreted as a trash pit. Levels 5 and 6 of N265E130 contained 39 coarse red earthenware sherds, 39 whiteware sherds, 1 creamware sherd, 2 yellowware sherd, and 18 pearlware sherds. The diagnostic glass was either mold blown dating from 1810-1857 with a pontil mark or part of a panel bottle dating from 1867 to the present. Levels 5 and 6 also contained 25 brick fragments, 12 clinkers, a piece of lead shot, 7 tar paper fragments, a slate pencil, a belt buckle, a knife, 3 can fragments, 4 cut nails and 38 unidentified nail fragments. Levels 7 and 8 contained 28 whiteware sherds, 2 ironstone sherds, 8 pearlware sherds and 16 creamware sherds as well as a cut copper nail and a decorated bone handled knife. The glass which could be identified was pressed - 1827-present. Level 9 contained 3 creamware sherds, and a single pearlware sherd. No diagnostic glass was present in this level.

Level 2 of N375E100 contained 4 whiteware and 1 ironstone sherds and panel bottle fragments. Level 3 contained machine made and pressed glass and panel bottle fragments as well as 10 whiteware sherds and 7 ironstone sherds. Level 4 contained 26 pearlware sherds, 24 whiteware sherds and 12 ironstone sherds as well as mold blown and pressed glass and panel bottle fragments. Level 5 contained no diagnostic artifacts.

Although less numerous, the artifacts in N115E180 appear to be earlier in general. No diagnostics were found in Level 3 of this unit. Level 4 contained 42 pearlware and 4 creamware sherds and no diagnostic glass. Level 5 contained 20 pearlware sherds and 1 creamware sherd as well as mold blown glass.

The test units north of the immediate Walkers Bank area (Figure 38) revealed very low quantities of artifacts; however, they did reveal the presence of the stone retaining wall below the road. This wall has been buried along this section, perhaps during construction of the present 141 bridge. The buried wall is shown in profile from N774E100, the unit nearest the bridge (Figure 42).

The site as a whole had a Mean Ceramic Date of 1840.22. Coarse red earthenware was the major ceramic type found in the site, with 715 sherds (37.71%). This was followed by whiteware - 519 (27.37%), pearlware - 311 (16.40%), ironstone - 158 (8.33%), porcelain - 81 (4.27%), creamware - 42 (2.22%), yellowware and other coarse earthenware - 47 (2.48%) and stoneware - 23 (1.21%). Plate 20 shows artifacts for Walkers Banks.

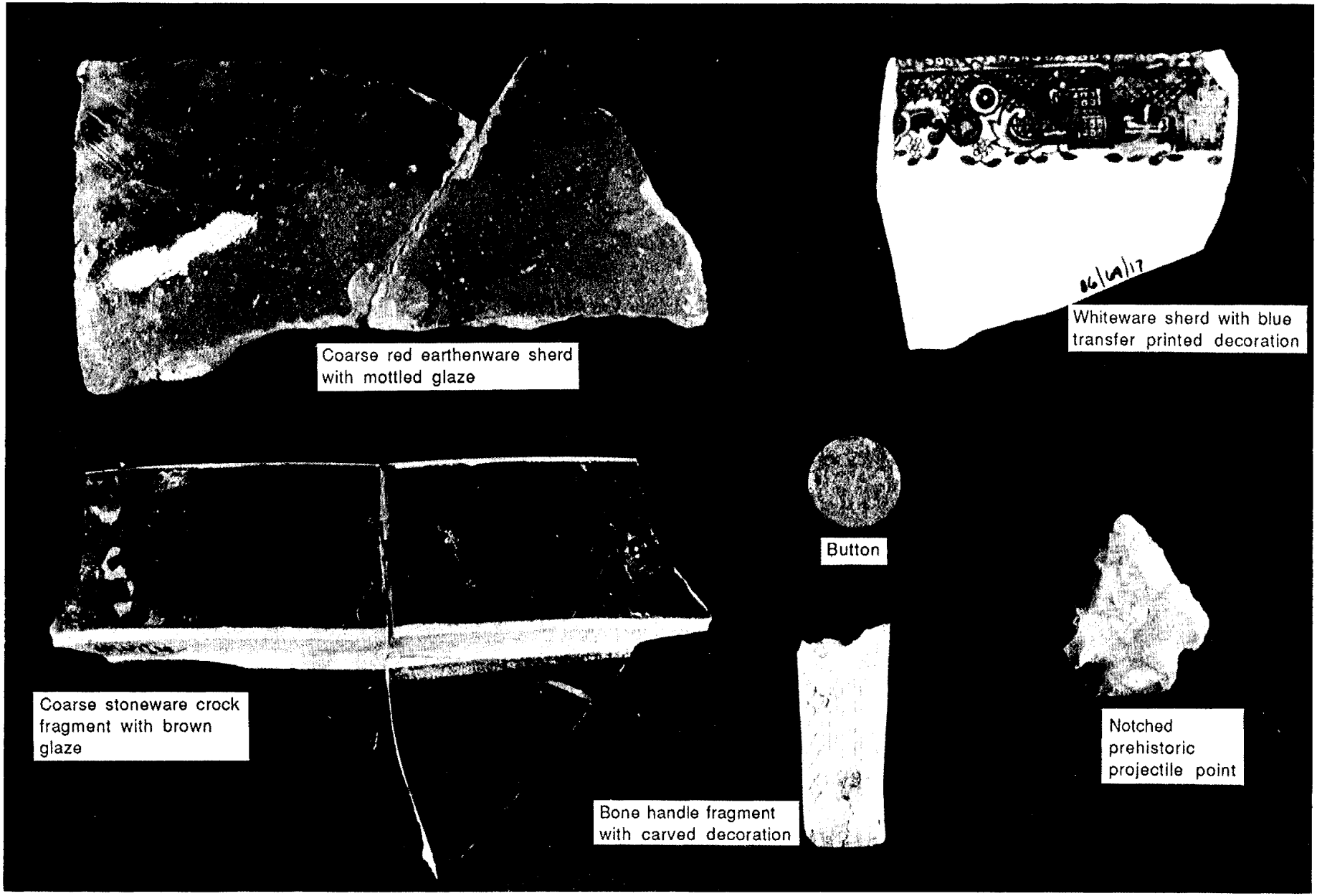
South's kitchen group (Group 1) was the major functional group at the site with 5,197 items (74,02%), followed by Group 2 - 1,860 (25.51%), Group 3 - 21 (.29), Group 4 - 5 (.07%), Group 5 - 71 (.97%), Group 6 - 28 (.38%), Group 7 - 43 (.59%) and Group 8 - 65 (.89%).

Summary of Extended Phase I Results, Walkers Bank (7NC-B-8)

The first mention of tenements or workers housing associated with Walker's Mill occurs in the 1816 tax assessment which lists 4 tenements along with a cotton mill for the Joseph B. Sims estate and three stone tenements for Thos. Siddal. These were built to house the workers from Walker's Mill. However, only the mill itself is shown on the Rea and Price map of 1849. The Lake and Beers map of 1860 and subsequent maps do show the tenements, as do turn of the century photographs.

Results of the testing between Walker's Mill and the Route 141 bridge identified refuse deposits of up to 4 feet in the area immediately below the road and adjacent to the Walkers Bank ruins. This refuse was shown to be restricted to the area just below a retaining wall on the lower side of the dirt road and is interpreted as household refuse from the Walkers Bank residences. The refuse deposits show some evidence of temporal stratification, perhaps from the full range of the tenement occupation which begins at least by 1816. In addition, two stone lined wells are present. These should contain potentially significant research data. Additional archeological work is recommended for Walkers Bank to gather research data concerning 19th century textile worker's housing. Additional archival research should be conducted. It should be possible to name the individual occupants of the units which will allow statements of ethnicity to be made.

PLATE 20
Walkers Bank Site Artifacts



Summary and Recommendations, Segment 4

Preliminary and extended Phase II archeological investigations of Segment 4 revealed structural remains in two areas, Dwelling H and Walkers Bank. In addition, two refuse deposits were found in association with Dwelling H as well as a cellar deposit. Refuse deposits were present at Walkers Banks in addition to two wells. Additional archival and archeological investigations are recommended. Additional archeological work is not recommended for a third area, Cistern B, as it is felt that the research potential of the feature has been exhausted by the current excavations.

SEGMENT 5

This segment (Figure 7) includes the entrance area to the DuPont Experimental Station and has been extensively graded. Archival investigations failed to reveal the presence of historic period sites. Due to extensive land alterations in this location, the presence of intact archeological remains was determined unlikely. No fieldwork was conducted at this location.

SEGMENT 6

Segment 5 (Figures 2, 28, 43 and 44) lies on the northeast side of Route 141 and is completely within the DuPont Country Club golf course and driving range. The segment extends 4000 feet from the intersection of Rockland Road to the edge of the woods marking the end of Segment 4. The project area is 200 feet wide for the entire length of this section. The grounds keeper from the country club was helpful in identifying those sections of the golf course which had, in his memory, been landscaped for green and fairway construction and these areas were not tested. All other areas were tested during the preliminary Phase I investigations. A total of 22 shovel tests, placed according to topographic conditions, were excavated along the segment (Figures 28, 43 and 44). All but two shovel tests revealed only slight amounts of cultural material which is interpreted as secondary field scatter, and is not considered to be significant. Two adjacent shovel tests, however, revealed a relatively high amount of historic period artifacts, and this was designated as DuPont Country Club Site.

DuPont Country Club Site

Shovel Tests 11 and 15 revealed a relatively high amount of historic artifacts in comparison with the other test units in this segment (Figure 28). However, these test units are next to the Number Seven Tee and the artifacts originated from a fill zone related to landscaping activities from the golf course construction. They are not in situ and are not considered significant. In support of this is the fact that archival study failed to reveal any evidence for the presence of a structure at this location. Therefore, Extended Phase I testing was not conducted at this location.